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MODERN SHORT PLAYS

A Textbook in General English
for
B. A. & B. Sc. Part II Examinations

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M/s. Samuel French Ltd., London for “The Discovery” by *Herman Ould*, “Waterloo” by *Sir Arthur Conan Doyle*, “The Bishop’s Candlesticks” by *Norman McKinnel* and “The Monkey’s Paw” by *W. W. Jacobs*; M/s. Putnam & Co. Ltd., London for “The Golden Doom” from ‘Five Plays’ by *Lord Dunsany*; M/s. Jonathan Cape Ltd., London for “The Six O’ Clock Call” by *Laurence Housman* from ‘One Act Plays’ ; and M/s Sidgwick and Jackson Ltd., Bloomsbury Way for “X=O : A Night of The Trojan War” from ‘Pawns’ by *John Drinkwater*.

FOREWORD

In compiling a book of short plays in English for our degree classes several factors have to be taken into consideration : the language should not only be easily intelligible but such as the student, if he so chooses, may imitate with profit; the details of persons, places and things in them should not be beyond his comprehension; they should, at the same time, deal with as many aspects of them as possible, to enable him fully to appreciate other ways of life than his own; they should be both entertaining and instructive; they should be fairly representative of the range and variety of this interesting art-form. All these have guided the editor in the choice of the plays presented here. They include both comedy and tragedy and, in subject-matter, such varied fare as superstition and reason, romance and realism, war and peace, love and hate, home and the 'brave new world' royalty and peasantry, sacrifice and self-interest. All together present a picture of life as it is and as it should be. What is more, they can all be read and enjoyed independently of the theatre, although they have all proved their worth in the theatre. Since the book is designed for study in the class-room, they are arranged in order of difficulty. The teacher is advised to follow the same order in the class.

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INTRODUCTION

The short play, usually in one act, is a popular form of drama today. Its chief feature is economy: economy in plot, character, and dialogue; economy of time in rehearsal and performance ; economy of expenditure. It is a suitable form of entertainment for the modern busy age. It particularly suits the amateurs. For long it was used as a mere 'curtain-raiser', as a trailer or a 'documentary' is used to introduce a film today : it was shown before the curtain went up on the main play on the bills, to enable the late-comers to be in their seats before the latter started. Often, as happened with a performance of the *The Monkey's Paw* in 1903, it proved so engaging that many in the audience left when it ended, not waiting to see the main item. It now exists in its own right.

A short play is not a full-length play in a condensed form. Nor will a summary of a full-length play make a short play. They are two distinct art-forms. Their subject-matter is different, their characters are differently conceived, their dialogue follows different lines, and their impression is different. While a full-length play can afford to have a long-winded plot, in which situation leads to situation, the short play can deal with but one situation, which is over when the play ends and cannot be expanded to make a fuller play. This also considerably limits the number of characters : not many can take part in a single situation. Neither are they developed to any length, for they are actors in a brief episode only and what is of interest is their part in that episode and no more. Consequently but a part of their character is

THE GOLDEN DOOM

LORD DUNSANY

THE GOLDEN DOOM

TIME—*Some while before the fall of Babylon.*

SCENE—*Outside the KING's great door in Zericon. Two SENTRIES pace to and fro, then halt, one on each side of the great door.*

FIRST SENTRY. The day is deadly sultry.

SECOND SENTRY. I would that I were swimming down the Gyshon, on the cool side, under the fruit-trees.

FIRST SENTRY. It is like to thunder, or the fall of a dynasty.

SECOND SENTRY. It will grow cool by nightfall. Where is the King?

FIRST SENTRY. He rows in his golden barge with ambassadors or whispers with captains concerning future wars. The stars spare him.

SECOND SENTRY. Why do you say "the stars spare him?"

FIRST SENTRY. Because if a doom from the stars fall suddenly on a king it swallows up his people and all things round about him, and his palace falls and the walls of his city and citadel, and the apes come in from the woods and the large beasts from the desert so that you would not say that a king had been there at all.

SECOND SENTRY. But why should a doom from the stars fall on the King?

FIRST SENTRY. Because the seldom placates them.

SECOND SENTRY. Ah, I have heard that said of him.

FIRST SENTRY. Who are the stars that a man should scorn them? Should they that rule the thunder, the plague, and the earthquake withhold these things save

GIRL. (*pointing*). My father is a taller soldier than that.

BOY. My father can write. He taught me.

GIRL. Ho! Writing frightens nobody: my father is a soldier.

BOY. I have a lump of gold. I found it in the stream that runs down to Gyshon.

GIRL. I have a poem. I found it in my own head.

BOY. Is it a long poem?

GIRL. No. But it would have been; only there were no more rhymes for sky.

BOY. What is your poem?

GIRL. "I saw a purple bird
 Go up against the sky,
 And it went up and up
 And round about did fly."

BOY. I saw it die.

GIRL. That doesn't scan.

BOY. Oh, that doesn't matter.

GIRL. Do you like my poem?

BOY. Birds aren't purple.

GIRL. My bird was.

BOY. Oh!

GIRL. Oh, you don't like my poem.

BOY. Yes, I do.

GIRL. No, you don't; you think it horrid.

BOY. No, I don't.

GIRL. Yes, you do. Why didn't you say you liked it?
It is the only poem I ever made.

BOY. I do like it. I do like it.

GIRL. You don't, you don't.

BOY. Don't be angry. I'll write it on the door for you.

GIRL. You'll *write* it!

for much prayer? 'Always ambassadors are with the King, and his commanders come in from distant lands, prefects of cities and makers of the laws, but never the priests of the stars.

SECOND SENTRY. Harks! Was that thunder?

FIRST SENTRY. Believe me, the stars are angry.

[*Enters a STRANGER. He wanders towards the KING's door, gazing about him.*]

SENTRIES [*lifting their spears at him*]. Go back! Go back!

STRANGER Why?

FIRST SENTRY It is death to touch the King's door.

STRANGER. I am a stranger from Thessaly.

FIRST SENTRY. It is death even for a stranger.

STRANGER Your door is strangely sacred.

FIRST SENTRY. It is death to touch it.

[*STRANGER wanders off. Enter two children hand in hand*].

BOY. [*to SENTRY*] I want to see the King to pray for a hoop.

[*SENTRY smiles*]

BOY [*pushes the door, to GIRL*]. I cannot open it.

[*To SENTRY*] Will it do as well if I pray to the King's door?

SENTRY. Yes, quite as well. [*Turns to talk to the other SENTRY.*] Is there anyone in sight?

SECOND SENTRY [*shading his eyes*]. Nothing but a dog, and he far out on the plain.

FIRST SENTRY. Then we can talk awhile and eat bash.

BOY. King's door, I want a little hoop.

[*The SENTRIES take a little bash between finger and thumb from pouches and put that wholly forgotten drug to their lips*)

GIRL. (*pointing*). My father is a taller soldier than that.

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BOY. I do like it. I do like it.

GIRL. You don't, you don't.

BOY. Don't be angry. I'll write it on the door for you.

GIRL. You'll *write* it!

Boy. Yes, I can write. My father taught me. I'll write it with my lump of gold. It makes a yellow mark on the iron door.

GIRL. Oh, do write it. I would like to see it written like real poetry. [BOY *begins to write.* GIRL *watches*]

FIRST SENTRY. You see, we'll be fighting again soon.

SECOND SENTRY. Only a little war. We never have more than a little war with the hill-folk.

FIRST SENTRY. When a man goes to fight, the curtains of the gods wax thicker than ever before between his eyes and the future, he may go to a great or to a little war.

SECOND SENTRY. There can only be a little war with the hill-folk.

FIRST SENTRY. Yet sometimes the gods laugh.

SECOND SENTRY. At whom?

FIRST SENTRY. At kings.

SECOND SENTRY. Why have you grown uneasy about this war in the hills?

FIRST SENTRY. Because the king is powerful beyond any of his fathers, and has more fighting-men, more horses, and wealth than could have ransomed his father and his grandfather and dowered their queens and daughters; and every year his miners bring him more from the opal mines and from the turquoise quarries. He has grown very mighty.

SECOND SENTRY. Then he will more easily crush the hill-folk in a little war.

FIRST SENTRY. When kings grow very mighty the stars grow very jealous.

Boy. I have written your poem.

GIRL. Oh, have you really?

Boy. Yes, I'll read it to you.

[*Reads*] "I saw a purple bird
 Go up against the sky,
 And it went up and up
 And round about did fly.
 I saw it die."

GIRL. It doesn't scan.

BOY. That doesn't matter.

[*Enter furtively a SPY, he crosses stage, exit. The sentries cease to talk.*]

GIRL. That man frightens me.

BOY. He is only one of the King's spies.

GIRL. But I don't like the King's spies. They frighten me.

BOY. Come on then, we'll run away.

SENTRY. [*noticing children again*]. Go away, go away.
The King is coming, he will eat you.

[*BOY throws a stone at the SENTRY and exit. Enter another SPY, he crosses the stage. Enter third SPY, he notices the door. Examines it and utters an owl-like whistle. No. 2 comes back. They do not speak. Both whistle. No. 3 comes. All examine the door. Enter the KING and his CHAMBERLAIN. The KING wears a purple robe. SENTRIES smartly transfer their spears to their left hands and return their right arms to their right sides. They then lower their spears until their points are within an inch of the ground, at the same time raising their right hands above their heads. They stand for some moments thus. They then lower their right arms to their sides at the same time raising their spears. In the next motion they take their spears into their right hands and lower the butts to the floor where they were before, the spears slanting forward a little. Both sentries must move together precisely.*]

FIRST SPY [*runs forward to the KING and kneels abasing his forehead to the floor, loq.*]. Something has written on the iron door.

CHAMBERLAIN. On the iron door!

KING. Some fool has done it. Who has been here since yesterday?

FIRST SENTRY [*shifts his hand a little higher on his spear, brings the spear to his side and closes his heels all in one motion, he then takes one pace backwards with his right foot, then he kneels on his right knee. When he has done this he speaks, but not before*]. Nobody, Majesty, but a stranger from Thessaly.

KING. Did he touch the iron door?

FIRST SENTRY. No, Majesty; he tried to, but we drove him away.

KING. How near did he come?

FIRST SENTRY. Nearly to our spears, Majesty.

KING. What was his motive in seeking to touch the iron door?

FIRST SENTRY. I do not know, Majesty.

KING. Which way did he go?

FIRST SENTRY [*pointing left*]. That way, Majesty, an hour ago.

[*The KING whispers with one of his SPIES, who stoops and examines the ground and steals away. SENTRY rises.*

KING. [*to his two remaining SPIES*]. What does this writing say?

A SPY. We cannot read, Majesty.

KING. A good spy should know everything.

SECOND SPY. We watch, Majesty, and we search out, Majesty. We read shadows, and we read footprints, and whispers in secret places. But we do not read writing.

KING [*to CHAMBERLAIN*]. See what it is.

CHAMBERLAIN [*goes up and reads*]. It is treason, Majesty.

KING. Read it.

CHAMBERLAIN.

“I saw a purple bird
Go up against the sky,
And it went up and up
And round about did fly.
It saw it die.”

FIRST SENTRY [*aside*]. The stars have spoken.

KING [*to SENTRY*]. Has anyone been here but the stranger
from Thessaly?

SENTRY. [*kneeling as before*]. Nobody, Majesty.

KING. You saw nothing?

FIRST SENTRY. Nothing but a dog far out upon the plain
and the children of the guard at play.

KING [*to SECOND SENTRY*]. And you?

SECOND SENTRY [*kneeling*]. Nothing, Majesty.

CHAMBERLAIN. That is strange.

KING. It is some secret warning.

CHAMBERLAIN. It is treason.

KING. It is from the stars.

CHAMBERLAIN. No, no, Majesty. Not from the stars,
not from the stars. Some man has done it. Yet the
thing should be interpreted. Shall I send for the
prophets of the stars?

[*The KING beckons to his SPIES. They run up to him.*

KING. Find me some prophet of the stars. [*Exeunt
SPIES.*] I fear that we may go no more, my cham-
berlain, along the winding ways of unequalled
Zericon, nor play dahoori with the golden balls. I
have thought more of my people than of the stars and

CHAMBERLAIN. Believe me, Majesty, some idle man has written it and passed by. Your spies shall find him, and then his name will be soon forgotten.

KING. Yes, yes. Perhaps you are right, though the sentries saw no one. No doubt some beggar did it.

CHAMBERLAIN. Yes, Majesty, some beggar has surely done it. But look, here come two prophets of the stars. They shall tell us that this is idle.

[Enter two PROPHETS, a BOY attending them. All bow deeply to the KING. The two SPIES steal in again and stand at back.]

KING. Some beggar has written a rhyme on the iron gate, and as the ways of rhyme are known to you I desired you, rather as poets than as prophets, to say whether there was any meaning in it.

CHAMBERLAIN. 'Tis but an idle rhyme

FIRST PROPHET *[bows again and goes up to the door. He glances at the writing, loq]*. Come hither, servant of those that serve the stars. *[ATTENDANT approaches.]*

FIRST PROPHET. Bring hither our golden cloaks, for this may be a matter for rejoicing; and bring our green cloaks also, for this may tell of young new beautiful things with which the stars will one day gladden the King; and bring our black cloaks also, for it may be a doom. *[Exit BOY. PROPHET goes up to door and reads solemnly.]* The stars have spoken.

[Re-enter ATTENDANT with cloaks.]

KING. I tell you that some beggar has written this.

FIRST PROPHET. It is written in pure gold.

[He dons the black cloak over body and head.]

KING. What do the stars mean? What warning is it?

FIRST PROPHET. I cannot say. [*He walks away, chanting.*]

Larimonas. Lahee, lahee, larimonas. Eleerithon.

Eilab. Areelonar.

KING [*to SECOND PROPHET*]. Come you, then, and tell us what the warning is.

SECOND PROPHET [*goes up to door and reads*]. The stars have spoken. [*He cloaks himself in black.*]

KING. What is it? What does it mean?

SECOND PROPHET. We do not know, but it is from the stars.

CHAMBERLAIN. It is a harmless thing; there is no harm in it, Majesty. Why should not birds die?

SECOND PROPHET. Larimonas. Lahee, lahee, larimonas. Eleerithon. Eilab. Areelonar.

KING. Why have the prophets covered themselves in black?

CHAMBERLAIN. They are a secret people and look for inner meanings. There is no harm in it.

KING. They have covered themselves in black.

CHAMBERLAIN. They have not spoken of any evil thing. They have not spoken of it.

KING. If the people see the prophets covered in black they will say that the stars are against me and believe that my luck has turned.

CHAMBERLAIN. The people must not know.

KING. Some prophet must interpret to us the doom. Let the chief prophet of the stars be sent for.

CHAMBERLAIN. [*going towards left, exit*]. Summon the chief prophet of the stars that look on Zericon.

VOICES OFF. The chief prophet of the stars. The chief prophet of the stars.

CHAMBERLAIN. I have summoned the chief prophet, Majesty.

KING. If he interpret this aright I will put a necklace of turquoises round his neck with opals from mines.

CHAMBERLAIN. He will not fail. He is a very cunning interpreter.

KING. What if he covers himself with a huge black cloak and does not speak and goes muttering away, slowly, with bended head, till our fear spreads to the sentries and they cry aloud?

CHAMBERLAIN. This is no doom from the stars, but some idle scribe hath written it in his insolence upon the iron door, wasting his hoard of gold.

KING. Not for myself I have a fear of doom, not for myself: but I inherited a rocky land, a windy and ill-natured, and nursed it to prosperity by years of peace and spread its boundaries by years of war. I have brought harvest up out of barren acres and given good laws unto naughty towns, and my people are happy, and lo! the stars are angry.

CHAMBERLAIN. It is not the stars, it is not the stars, Majesty, for the prophets of the stars have not interpreted it. Indeed it was only some reveller wasting his gold.

[Meanwhile enter CHIEF PROPHET of the stars that look on Zericon.]

KING. Chief Prophet of the stars that look on Zericon, I would have you interpret the rhyme upon yonder door.

CHIEF PROPHET *[goes up to the door and reads, loq]*. It is from the stars.

KING. Interpret it and you shall have great turquoises round your neck, with opals from the mines in the frozen mountains.

CHIEF PROPHET [*cloaks himself like the others in a great black cloak, loq*]. Who should wear purple in the land but a king, or who go up against the sky but he who has troubled the stars by neglecting their ancient worship? Such an one has gone up and up, increasing power and wealth, such an one has soared above the crowns of those that went before him, such an one the stars have doomed, the undying ones, the illustrious. [*A pause.*]

KING. Who wrote it?

CHIEF PROPHET. It is pure gold. Some god has written it.

CHAMBERLAIN. Some god?

CHIEF PROPHET. Some god whose home is among the undying stars.

FIRST SENTRY [*aside to SECOND*]. Last night I saw a star go flaming earthwards.

CHIEF PROPHET. Larimonas. Lahee, lahee, larimonas. Eleerithon. Eilab. Arcelonar.

KING. Is this a warning or is it a doom?

CHIEF PROPHET. The stars have spoken.

KING. It is then a doom?

CHIEF PROPHET. They speak not in jest.

KING. I have been a great king. . . . Let it be said of me, "The stars overthrew h'm, and they sent a god for his doom." For I have not met my equal among kings that man should overthrow me; and I have not oppressed my people that man should rise up against me.

CHIEF PROPHET. It is better to give worship to the stars than to do good to man. It is better to be humble before the gods than proud in the face of your enemy though he do evil.

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KING. I will sacrifice my crown and reign uncrowned amongst you, so only I save my kingdom.

CHIEF PROPHET. If you sacrifice your crown, which is your pride, and if the stars accept it, perhaps the god that they sent may avert the doom and you may still reign in your kingdom, though humbled and uncrowned.

KING. Shall I burn my crown with spices and with incense or cast it into the sea?

CHIEF PROPHET. Let it be laid here by the iron door where the god came who wrote the golden doom. When he comes again by night to shrivel up the city or to pour an enemy in through the iron door he will see your cast-off pride and perhaps accept it and take it away to the neglected stars.

KING [*to* CHAMBERLAIN]. Go after my spies and say that I make no sacrifice. [*Exit* CHAMBERLAIN, *right*. *Taking off his crown*] Good-bye, my brittle glory; kings have sought you; the stars have envied you.

[*The stage grows darker.*]

CHIEF PROPHET. Even now the sun has set who denies the stars, and the day is departed wherein no gods walk abroad. It is near the hour when spirits roam the earth and all things that go unseen, and the faces of the abiding stars will be soon revealed to the fields. Lay your crown there and let us come away.

[*The KING lays his crown and sceptre before the iron door.*]

KING [*to* SENTRIES]. Go. And let no man come near the door all night.

SENTRIES [*kneeling*]. Yes, Majesty.

[*They remain kneeling until after the KING has gone. KING and CHIEF PROPHET walk away.*]

CHIEF PROPHET. It was your pride. Let it be forgotten. May the stars accept it. [*Excunt left. The SENTRIES rise*]

KING. Let the stars hearken yet and I will sacrifice a child to them. I will sacrifice a girl-child to the twinkling stars and a male child to the stars that blink not, the stars of the steadfast eyes. [*To his SPIES*] Let a boy and a girl be brought for sacrifice [*Exit a SPY right, looking at footprints*] Will you accept this sacrifice to the god that the stars have sent? They say that the gods love children.

CHIEF PROPHET. I may refuse no sacrifice to the stars, nor to the gods whom they send. [*To other PROPHETS*] Make ready the sacrificial knives.

[*PROPHETS draw knives and sharpen them.*]

KING. Is it fitting that the sacrifice take place by the iron door where the god from the stars has trod, or must it be in the temple?

CHIEF PROPHET. Let it be offered by the iron door. [*To other PROPHETS*] Fetch hither the altar-stone. [*The owl-like whistle is heard off right. Third SPY runs crouching towards it. Exit.*]

KING. Will this sacrifice avail to avert the doom?

CHIEF PROPHET. Who knows?

KING. I fear that even yet the doom will fall.

CHIEF PROPHET. It were wise to sacrifice some greater thing.

KING. What more can a man offer?

CHIEF PROPHET. His pride.

KING. What pride?

CHIEF PROPHET. Your pride that went up against the sky and troubled the stars.

KING. How shall I sacrifice my pride to the stars?

CHIEF PROPHET. It is upon your pride that the doom will fall, and will take away your crown and will take away your kingdom.

KING. I will sacrifice my crown and reign uncrowned amongst you, so only I save my kingdom.

CHIEF PROPHET. If you sacrifice your crown, which is your pride, and if the stars accept it, perhaps the god that they sent may avert the doom and you may still reign in your kingdom, though humbled and uncrowned.

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[*The KING lays his crown and sceptre before the iron door.*]

KING [*to* SENTRIES]. Go. And let no man come near the door all night.

SENTRIES [*kneeling*]. Yes, Majesty.

[*They remain kneeling until after the KING has gone. KING and CHIEF PROPHET walk away.*]

CHIEF PROPHET. It was your pride. Let it be forgotten. May the stars accept it. [*Excunt left. The SENTRIES rise*]

FIRST SENTRY. The stars have envied him !

SECOND SENTRY. It is an ancient crown. He wore it well.

FIRST SENTRY. May the stars accept it.

SECOND SENTRY. If they do not accept it what doom will overtake him?

FIRST SENTRY. It will suddenly be as though there were never any city of Zericon, nor two sentries like you and me standing before the door.

SECOND SENTRY. Why! How do you know?

FIRST SENTRY. That is ever the way of the gods.

SECOND SENTRY. But it is unjust.

FIRST SENTRY. How should the gods know that?

SECOND SENTRY. Will it happen to-night?

FIRST SENTRY. Come, we must march away.

[Exit right. The stage grows increasingly darker, Re-enter CHAMBERLAIN, right. He walks across the stage. Exit left Re-enter SPIES, right. They cross the stage. The stage is now nearly dark. Enter BOY, right, dressed in white—his hands out a little.]

BOY. King's door, King's door, I want my little hoop.

[He goes up to the KING's door. When he sees the KING's crown there he utters a satisfied "Oh-h!" He takes it up and puts it on the ground and beating it before him with the sceptre goes out by the way that he entered. The great door opens, there is light within; a furtive SPY slips out, sees crown is gone. Another SPY slips out. Their crouching heads come close together.]

FIRST SPY *[hoars whisper]*. The gods have come.

[They run back through the door and the door is closed. It opens again and the KING and CHAMBERLAIN come through.]

KING The stars are satisfied.

CURTAIN

THE DISCOVERY

HERMAN OULD

CHARACTERS:

CHRISTOPHER COLUMBUS.

PEDRO GUTIERREZ, an officer.

PEPE, a page-boy.

JUAN PATINO

DIEGO GARCIA

FRANCISCO

GUILLERMO IRES

} other scamen.

THE DISCOVERY

SCENE—On board the "Santa Maria."

TIME—October 11, 1492.

[The ship is seen from an angle, which brings the poop somewhat to the left, the quarter-deck taking up the greater part of the stage. If it is visible, the midmast should bear a crucifix, in passing which everybody mechanically crosses himself. A large lantern, containing a lighted candle, is fixed at the extreme top of the poop. The night is still, and there is little movement in the sails.]

Two seamen are visible, both well to the right. JUAN is on his knees, adjusting rigging: DIEGO is helping. The actions of both of them are indeterminate, clearly designed to conceal their real purpose. They speak in loud whispers.]

DIEGO. Within the next half an hour he will go to the poop-head as sure as God's alive. He can't keep away from it. His eyes are glued on the sky as if he expected his precious New World to burst out of it like a thunderbolt! [he laughs derisively]

JUAN. Poor wretch!

DIEGO. Now, then—Juan—quaking again!

JUAN. That's a lie! Why should I quake? What is there to fear? [after a brief pause] But I am sorry for him.

DIEGO. Why waste your pity? Shall it be one madman, his head stocked with visions, or forty honest seaman pining for their homes?

JUAN. *Santisima Maria*, but he's a *gracious* madman..

well-built man of forty-six. Hair prematurely white, complexion fair, almost ruddy. A man of quick temper and irritability which he controls only with an effort. His face, in repose, is melancholy. Seeing DON PEDRO in conversation with DIEGO, he looks a trifle suspicious. He turns quickly to CIEGO.]

COLUMBUS. That candle on the foremast is guttering; see that it is put right.

DIEGO [*sullenly*]. Aye, aye, sir. [*He goes*].

COLUMBUS [*recalling him*]. And Diego!

DIEGO [*coming back*]. Yes, sir.

COLUMBUS. This is the quarter-deck.

DIEGO. Yes, sir.

COLUMBUS. A good sailor knows his place.

DIEGO [*with repressed fury*]. Yes, sir.

[COLUMBUS *points off*; DIEGO, *scarcely concealing a scowl, goes off*.]

COLUMBUS [*to PEDRO*]. A surly dog !

PEDRO. And a dangerous one. He does more than his share to inspire discontent.

COLUMBUS. I have remarked it.

[COLUMBUS *is thoughtful for a moment and remains stationary. Presently he goes on to the poop and looks out to sea. PEDRO follows him. Simultaneously, PEPE, the page-boy, emerges from the hatchway, against which he stands, out of sight of the others. When they begin to talk he listens eagerly.*]

COLUMBUS. Easterly, ever easterly. God is in the wind, Don Pedro.

PEDRO [*with a short laugh*]. The crew would say that is the Devil, rather, Captain. All day, and every day, the wind blows easterly, blowing them away

DIEGO [*impatiently*]. Gracious when all goes to his pleasure, but as irritable as a teething child when crossed!

[*The song of seamen is heard; it is a scarcely distinguishable murmur.*

“Here’s a keg o’rum
To Kingdom Come!
The Devil laughs,
But God is dumb!”

JUAN [*sharply*]. They ought to stop that. The captain is always furious when he hears it.

DIEGO. Shan’t we even sing to keep up our spirits? ‘Sh!

[*They attend with assumed assiduity to the rigging. PEDRO GUTIERREZ comes in; he is somewhat surprised when he sees the others.*]

PEDRO. Who’s that?

DIEGO. [*rising*]. Diego Garcia and Juan Patino, sir.

PEDRO [*inclined to be communicative*]. It’s dark. I would welcome the moon.

DIEGO. Aye, aye, Don Pedro. Some of us would welcome the coast of Spain still more.

PEDRO. [*pumping*]. Impatient. Diego?

DIEGO. [*surlily*]. There are limits to patience, sir.

PEDRO. [*humouring him*]. And you’ve reached them, eh?

DIEGO. We’re like bats trying to fly by day. It’s time he gave way. Why should one man have the lives of fifty in his hands?

PEDRO [*with authority*]. I hope we are not entertaining mutinous thoughts, Diego.

DIEGO. Mutiny is an ugly word, sir.

PEDRO. And an uglier deed.

[*JUAN, finishing his job at the rigging, rises, and with a shout goes off. COLUMBUS comes on. He is a tall,*

well-built man of forty-six. Hair prematurely white, complexion fair, almost ruddy. A man of quick temper and irritability which he controls only with an effort. His face, in repose, is melancholy. Seeing DON PEDRO in conversation with DIEGO, he looks a trifle suspicious. He turns quickly to GIEGO.]

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COLUMBUS. Easterly, ever easterly. God is in the wind, Don Pedro.

PEDRO [*with a short laugh*]. The crew would say that is the Devil, rather, Captain. All day, and every day, the wind blows easterly, blowing them away

from their homes and their country, their wives and children, their friends and sweethearts.

COLUMBUS [*hastily*]. You too, Don Pedro? Do you, too, doubt?

PEDRO Have I said so, captain? Am I not here by your side, prepared?

COLUMBUS. Foregive me, friend. You are one of the few with faith and it is not easy to hold fast to faith when nothing seems to warrant faith. Listen to that.

SEAMEN [*off, singing*]:—

“Here’s, a keg o’ rum
To Kingdom Come !
The Devil laughs,
But God is dumb !”

[COLUMBUS and PEDRO descend to the quarter-deck.]

COLUMBUS. *Madre de Dios*, they drink too much.

PEDRO. They are simple men and must have their relaxation. [*The next words break from him almost involuntarily.*] We have not all your vision, Captain.

COLUMBUS. You are beginning to doubt, Don Pedro. Give me the content of your mind. I am an impatient man and prone to be unjust; but [*whimsically*]. I mean well, Don Pedro. I mean well. Speak without fear.

PEDRO [*at first with diffidence, but rapidly gaining confidence.*] To-day is the 11th of October—more than two months since we saw the shores of Spain receding.

You held a glittering hope of discovery before us and I faith. Day followed day, and soon we found in weathered seas, but still we had faith.

[*with dignity*] I am a man of
at easily led to wonder at

natural phenomena as the unlettered might be. But I confess that I knew some uneasiness when the needle of the compass, instead of pointing to the constant North, jumped as if the devil had laid hand on it, and pointed to the North-west. I am not a child, nor a simpleton, nor a superstitious seaman; but there is such a thing as being too clever, prying into mysteries which were not meant for our eyes. In all humility, Captain, I ask if it is God's will that we should pursue this voyage in the face of every portent of ill-luck?

COLUMBUS [*impatiently*]. It is *my* will. Is that not enough?

PEDRO [*bowing his head*]. I am answered.

COLUMBUS [*hastily*]. Forgive me, Don Pedro. A curb for my tongue—oh, a curb for my unbridled tongue, my worst enemy! [*More quietly.*] *My* will friend, because God's will. Shall that suffice?

PEDRO [*not appeased*]. I do not claim your confidence, sir.

COLUMBUS [*thundering again*]. But I claim yours. [*The sound of the seamen's song is again heard.*] A blight upon their singing! Bid them stop. [*PEDRO goes off, with an air of discontent. When he is alone, COLUMBUS looks out at sea. Muttering.*] Mystery? Would God implant the desire to solve mysteries and not provide the solution? [*Suddenly PEPE runs up the steps to the poop. COLUMBUS is startled.*] *Pañeta!* Who is that?

PEPE. Me, Captain—Pepe!

COLUMBUS [*frowning on him*]. Have you been there all the time?

PEPE. Please, sir, I am off duty.

COLUMBUS. Then why aren't you down below?

PEPE [*whimsically, knowing that he is privileged*]. I prefer your company to theirs. [*He points below.*] Am I in the way here, sir?

COLUMBUS [*humouring him*]. What a boy ! and what do they say of the preference?

PEPE. I don't speak to them. I hate them.

COLUMBUS. 'Sh. Pepe ! And get you gone! [PEPE *turns reluctantly*]. Quick! [*The boy goes more quickly.*] Here! You heard what Don Pedro said?

PEPE. Yes, captain. And *he* is the best.....

COLUMBUS. But even he doubts.....

PEPE. Everybody doubts.....except me.

COLUMBUS. [*bitterly*]. Everybody.....

PEPE [*eagerly*]. Except me, captain, except me.

[*He goes to him impetuously.*]

COLUMBUS [*laying a hand on the boy's head*]. You are young enough to have faith. Thanks you, boy.

[*The seamen's song is heard again.*]

PEPE. They are horrible when they drink too much. They say it makes them forget.

COLUMBUS. Poor fellows!

PEPE [*approaching nearer*]. Captain, be careful ! Sometimes they are desperate.

[*The song surges up like a growl.*]

COLUMBUS. That is ugly. I bade Don Pedro stop them. So you think they might become dangerous?

[DON PEDRO *returns.*] Go, boy. [PEPE *moves away, but does not go out.*] Well, Don Pedro? Their singing changes to a roar. The deepening of their discontent is ominous.

[*The noise grows louder.*]

PEDRO. Captain, they ignore my order.

COLUMBUS [*furious*]. I'll make an example of one of them. [*Suddenly.*] Hallo, there ! What sneaking mischiefmaker is that crawling about the deck? Show yourself!

[FRANCISCO *appears from the right.*]

COLUMBUS. Ho, Francisco—you, is it ?

FRANCISCO. Yes, sir. And I'm no sneaking mischiefmaker.

COLUMBUS. Then why behave as one? Why are you here? Did I send for you? Is discipline obsolete in the Ocean Sea? Is Jack as good as his master nowadays?

FRANCISCO [*humbly*]. Your words sting, sir !

COLUMBUS. And are meant to. I am tired of the mumbling and grumbling of the crew. I have been patient too long.

FRANCISCO. I came to warn you, sir. The temper of the crew is dangerous.

COLUMBUS. Danger is the breath of my life. I should doubt I lived if I lived outside danger.

FRANCISCO [*the words springing from him spasmodically*]. Our power of endurance has gone. We refuse to go on, I warn you. I respect your person and do not wish to see violence used; but it is more than mortal can bear, this endless sailing into unknown seas.

COLUMBUS [*to PEDRO*]. Don Pedro, the ship is in your hands. I will talk to our friend, as man to man.

[*PEDRO goes on to the poop. COLUMBUS, his voice gentler, almost ingratiating, turns to FRANCISCO, who shifts from foot to foot, nervous by reason of the unaccustomed proximity.*] Francisco, let me plead with you. There are men whom God has chosen for the working of

COLUMBUS *stands rigid, endeavouring to catch the words.*
Did you hear *that*, sir?

PEPE [*who has been unobserved*]. They shan't ! They shan't !

COLUMBUS. Boy, come here. What were the words ?

PEPE [*almost weeping*]. He said : "The *Santa Maria* will be the lighter for his carcass."

COLUMBUS [*bitterly*]. He said that, did he?

[*He blinks—is moved more than he will show.*]

FRANCISCO. I am sorry, sir....I knew how high feeling had run.

COLUMBUS [*authoritatively*]. Send Guillermo Ires to me !

FRANCISCO [*not without diffidence*]. Sorry sir, but....

COLUMBUS. Discipline knows no buts.

FRANCISCO [*angrily*]. Discipline is a thing of the past, sir. It's you or us.

COLUMBUS [*to DON PEDRO*]. Don Pedro, let Guillermo Ires be sent to me. He shall know what it is like in irons.

[*PEDRO is half-way down the stairs to the quarter-deck when GUILLERMO IRES and other seamen rush in an angry mass towards COLUMBUS, growling like infuriated animals.*]

COLUMBUS [*in a thunderous voice*]. Stop ! What is the meaning of this wild uproar ? [*The men stand transfixed*]. The first man to move shall spend the rest of the night in irons !

[*There is a perceptible pause, during which nobody moves. Then with a wild cry, GUILLERMO IRES breaks away from the others and advances towards COLUMBUS.*]

GUILLERMO. And who's to put him in irons ? We are thirty to one.

by worms breaks. Discipline, duty, and honourable obedience are bubbles that burst at the first contact. There remains but onself. That is my only discovery so far, Pepe.

PEPE [*his eyes gleaming with excitement*]. Captain I am loyal, I am still obedient, still your devoted servant..

COLUMBUS [*with some emotion*]. I am not, ungrateful.

PEDRO [*scrapping his throat with dignity*]. I hope my loyalty has never been in question, sir? [*He salutes.*]

COLUMBUS [*returning the salute*]. You have sometimes been silent, Don Pedro, when speech would have made your loyalty clear. But I thank you....

[*COLUMBUS turns and looks out at sea; for a moment his attention is fixed. He peers more earnestly into the darkness. There is a movement among men. He turns.*]

JUAN. We are simple men, sir.....

COLUMBUS [*hastily*]. Shall simple men judge their betters?

GUILLERMO [*surlily*]. We may as well wait till tomorrow, at any rate.

COLUMBUS. Dark deeds are better done in the dark.

[*GUILLERMO, scowling, but sheepish, slinks off, followed by one or two of the seamen.*]

FRANCISCO. Desperate men do not always act up to the best that is in them, sir.

COLUMBUS [*with quiet irony*]. I thank you for reminding me, Francisco. Your best cannot be bettered. Goodnight !

[*FRANCISCO half-turns to speak again, but thinks better of it and goes, shamefaced. Several others go, too, sheepish. A brief silence. COLUMBUS does not move; he is strugg-*

ling with overwrought emotion. When he speaks his voice is not steady.]

COLUMBUS. Go, boy !

[PEPE seizes his hand, kisses it, and hastily descends to the quarter-deck and goes out.]

COLUMBUS *[turning to PEDRO]*. Two minutes ago, Don Pedro, I saw....I thought I saw....*[He peers into the darkness]*. It was.....It is.....

PEDRO *[in excitement]*. What, sir?

COLUMBUS. A light, faintly flickering, rising up and down. Look ! *[He points]*

PEDRO. It is, sir ! Glory be to God !

[At this moment there is wild shout, off.]

VOICE *[off]* A light ! A light ! Land ! Land !

[A sailor comes running on, delirious with joy and excitement.]

SAILOR. Did you see it, sir? A light ! Blessed. Mother of God ! A light !

COLUMBUS *[with quiet authority]*. Give the order to heave to.

CURTAIN

WATERLOO

SIR ARTHUR CONAN DOYLE

CHARACTERS

CORPORAL GREGORY BREWSTER, *aged ninety-six.*

SERGEANT ARCHIE McDONALD, *R.A.*

COLONEL JAMES MIDWINTER, *Royal Scots Guards.*

NORAH BREWSTER, *the Corporal's grandniece.*

WATERLOO

SCENE—*A front room in a small house in Woolwich. Cooking range at fire. Above the fire a rude painting of an impossible military man in a red coat with a bearskin. On one side a cutting from a newspaper framed. On the other a medal, also within a frame. Bright fire-irons, centre table, Bible on small table in window, wooden arm-chair with cushion, rack holding plates, etc.*

JUNE 1881

Curtain rising discovers the empty room; door opens, and enter NORTH BREWSTER, a country girl, with a bundle of her effects. She looks timidly about her, and then closes the door.

Basket on handbox. During dialogue takes hat and cloak off and puts them on sideboard L., takes apron out of basket, and puts it on chair R. of door.

NORAH. And this is Uncle Gregory's [*crosses to fire-place*]. Why, there's his portrait just above the fire-place, the very same as we have it at home—and there is his medal by his portrait. Oh, how strange that I should have a house all to myself. Why, it's next door to being married. I suppose Uncle isn't up yet, they said that he was never up before ten. Well, thank goodness that housekeeper has lit the fire before she went away. She seems to have been a nice sort of a party, she does: Poor old Uncle! he does seem to have been neglected. Never mind! I've come to look after him now. Let me see if everything is ready for Uncle when he does

come. Won't he be surprised to see me ! Of course he would have had Mother's letter to say I was coming, but he wouldn't think I'd be here so early. [*At table R. C.*] I wonder what makes the milk look so blue. [*At drawer at back R. C.*] Oh my ! what nasty butter. I'm so glad I brought some other butter with me. [*Takes pat of butter off plate, puts it in basket. Takes pat out of basket and puts it on plate.*] Now for the bacon. Oh, what a cruel piece ! Why, our Essex pigs would blush to own bacon like that ! [*Puts rasher in frying-pan and puts pan and hob.*] Now I'll make the tea if the kettle boils. Kettle doesn't boil. Never mind. I'll warm the pot. [*Puts water out of kettle on fire in pot and pot on table.*] Dear old Uncle [*looking at portrait*], don't he look grand ! They must have been awful brave folk to dare to fight against him. I do hope I'll be able to make him happy. [*Knock down in flat, L. C.*] Oh dear ! A knock ! I wonder who it is ! [*Knock again.*] I suppose I must see who it is. [*Up to door in flat R.C., opens it.*]

Enter SERGEANT MCDONALD

SERGEANT [*saluting*]. Beg your pardon, miss, but does Corporal Gregory Brewster live here?

NORAH [*timidly*]. Yes, sir.

SERGEANT. The same who was in the Scots Guards?

NORAH. Yes, sir.

SERGEANT. And fought in the battle of Waterloo?

NORAH. Yes, the same, sir.

SERGEANT. Could I have a word with him, miss?

NORAH. He's not down yet.

SERGEANT. Ah, then, maybe I'd best look in on my way back. I'm going down to the butts, and will pass again in an hour or two.

NORAH. Very well, sir. [*Going out.*] Who shall I say came for him? [SERGEANT *returns and places carbine L. of sideboard L.*]

SERGEANT. McDonald's my name—Sergeant McDonald of the Artillery. But you'll excuse my mentioning it, miss: there was some talk down at the Gunners' barracks that the old gentleman was not looked after quite as well as he might be. But I can see now that it's only foolish talk, for what more could he want than this?

NORAH. Oh, I've only just come. We heard that his housekeeper was not very good to him, and that was why my father wished me to go and do what I could.

SERGEANT. Ah! he'll find the difference now.

NORAH [*bustling about putting tea in pot*]. Two for Uncle and one for the pot. We were all very proud of Uncle Gregory down Leyton way. [*Takes teapot to fire and fills it from kettle.*]

SERGEANT. Aye he's been a fine man in his day. There's not many living now who can say that they fought against Napoleon Boneypart.

NORAH. Ah, see, there's his medal hung up by his portrait.

SERGEANT [*after her*]. But what's that beside the medal?

NORAH [*standing on tiptoe, and craning her neck*]. Oh, it is a piece of print, and all about Uncle. [*Brings frame.*]

SERGEANT. Aye, it's a slip of an old paper. There's the date, August 1815, writ in yellow ink on the corner.

NORAH [*takes down medal*]. It's such small print.

SERGEANT [*front of table*]. I'll read it to you.

NORAH. Thank ye, sir !

SERGEANT [*clears his throat impressively*]. "A heroic deed." That's what's on the top. "On Tuesday an interesting ceremony was performed at the barracks of the third regiment of Guards, when in the presence of the Prince Regent, a special medal was presented to Corporal Gregory Brewster...."

NORAH [*R. of SERGEANT*]. That's him ! That's Uncle !

SERGEANT. "To Corporal Gregory Brewster of Captain Haldane's flank company, in recog—recognition of his valour in the recent great battle. It appears that on the ever memorable 18th of June, four companies of the third Guards and of the Coldstreams, held the important farmhouse of Hugymount at the right of the British position. At a critical period of the action these troops found themselves short of powder, and Corporal Brewster was dispatched to the rear to hasten up the reserve am—ammunition. The corporal returned with two tumbrils of the Nassau division, but he found that in his absence the how—howitzer fire of the French had ignited the hedge around the farm, and that the passage of the carts filled with powder had become almost an impossibility. The first tumbril exploded, blowing the driver to pieces, and his comrade, daunted by the sight, turned his horses; but Corporal Brewster, springing into his seat, hurled the man down, and urging the cart through the flames, succeeded in rejoining his comrades. Long may the heroic Brewster—"

NORAH. Think of that, the heroic Brewster !

SERGEANT. "Live to treasure the medal which he has so bravely won, and to look back with pride to the day when, in the presence of his comrades, he received this tribute to his valour from the hands of the first gentleman of the realm." [*Replaces the paper.*] Well, that is worth being proud of. [*Hands back frame, she puts it on mantel.*]

NORAH. And we are proud of it, too.

SERGEANT. Well, miss, I'm due at the butts, or I would [*taking carbine*] stay to see the old gentleman now. [*Up to door.*]

NORAH [*following*]. I don't think he can be long.

SERGEANT. Well, he'll have turned out before I pass this way again, good day, miss, and my respects to you, miss.

[*Exit SERGEANT McDONALD, door in flat L.C.*]

NORAH [*looking through door after him*]. Oh, isn't he a fine man ! I never saw such a man as that down Leyton way. And how kind he was ! Think of him reading all that to me about Uncle ! [*Coming L.*] . It was as much as to say that Uncle won that battle. Well, I think the tea is made [*over to fire*] now, and—

CORPORAL [*without entering*]. Mary, Mary—I wants my rations.

NORAH [*aside*]. Lord 'a mercy !

[*Enter CORPORAL GREGORY BREWSTER, tottering in, gaunt, bent, and doddering, with white hair and wizened face. He taps his way across the room, while NORTH, with her hands clasped, stares aghast first at the man, and then at his picture on the wall.*]

CORPORAL [*querulously*]. I wants my rations ! The cold nips me without 'em. See to my hands. [*Holds out his gnarled knuckles.*]

NORAH [*gets round behind table*]. Don't you know me, Grand-uncle? I'm Norah Brewster, from down Essex way.

CORPORAL. Rum is warm, and schnapps is warm, and there's 'cat in soup, but gimme a dish of tea for choice. Eh? [*Peers at the girl.*] What did you say your name was, young woman ? [*Sits R. of table.*]

NORAH [*L. of table*]. Norah Brewster.

CORPORAL. You can speak out, lass. Seems to me folks' voices ain't as strong as they was.

NORAH [*back of chair*]. I'm Norah Brewster, Uncle. I'm your [*takes up bacon*] grand-niece, come from Essex way to live with you. [*Takes bacon out of pan on fire, puts on plate.*]

CORPORAL [*chuckling*]. You're Norah, hey ! Then you'll be brother Jarge's gal, likely? Lor, to think o' little Jarge havin' a gal !

NORAH [*putting bacon on table*]. Nay, Uncle. My father was the son of your brother George. [*Pouring out tea.*]

CORPORAL [*mumbles and chuckles, picking at his sleeves with his trembling hands*]. Lor, but little Jarge was a rare un ! [*Draws up to the table while NORAH pours out the tea.*] Eh, by Jimini, there was no chousing Jarge ! He's got a bull-pup o' mine that I lent him when I took the shillin'. Likely it's dead now. He didn't give it ye to bring, maybe?

NORAH [*R. of table, and glancing ever wonderingly at her companion*]. Why, Grandpa Jarge has been dead this twenty years.

CORPORAL [*mumbling*]. Eh, but it were a bootiful pup—bootiful ! [*Drinks his tea with a loud supping.*
NORAH *pours out second cup.*] I am cold for the lack o' my rations. Rum is good and schnapps, but I'd as lief have a dish o' tea as either.

NORAH. I've brought you some butter and some eggs in the basket. Mother said as I was to give you her respec's and love, and that she'd ha' sent a tin o' cream, but it might ha' turned on the way. [*R., sets chair L. of fireplace.*]

CORPORAL [*still eating voraciously*]. Eh, it's a middlin' goodish way. Likely the stage left yesterday.

NORAH. The what, Uncle?

CORPORAL. The coach that brought ye.

NORAH. Nay, I came by the mornin' train.

CORPORAL. Lor' now, think o' that. The railway train, heh? You ain't afeared o' them new-fangled things ! By Jimini ! to think of your comin' by railway like that. Why, it's more than twenty mile. [*Chuckling*] What the world a-comin' to? [*Puffs out his chest and tries to square his shoulders.*] Eh, but I get a power o' good from my rations !

NORAH. Indeed, Uncle, you seem a deal stronger for them.

[*Up to the table and begins to clear things away.*]

CORPORAL. Aye, the food is like coals to that fire. But I'm nigh burned out, lass, I'm nigh burned out.

NORAH [*clearing the table*]. You must ha' seen a deal o' life, Uncle. It must seem a long time to you.

CORPORAL. Not so very long, neither. I'm well over ninety, but it might ha' been yesterday that I took the bounty. And that battle, why, by Jimini, I've

not got the smell of the burned powder out o' my nose yet. Have you read that? [*nodding to the cutting.*]

NORAH. Yes, Uncle, and I'm sure that you must be very proud of it.

CORPORAL [*stands looking at it*]. Ah, it was a great day for me—a great day! The Regent he was there, and a fine body of a man too. [*Tries to stuff some tobacco into his pipe.*] He up to me and he says, "The Ridgement is proud of ye," says he. "And I'm proud o' the Ridgement," says I. "And a damned good answer, too," says he to Lord Hill, and they both bust out a-laughin'. [*Coughs and chuckles, and points up at the mantlepiece.*]

NORAH. What can I hand you, Uncle? [*Gets bottle and spoon from mantlepiece.*]

CORPORAL. A spoonful from that bottle by the brass candlestick, my girl! [*Drinks it.*] It's paregoric, [*music*] and rare stuff to cut the phlegm. [*NORAH looks out of the window*] But what be you a peepin' out o' the window for? [*NORAH pushes window up, music louder.*]

NORAH [*excitedly*]. Oh, Uncle, here's a regiment o' soldiers comin' down the street.

CORPORAL [*rising and clawing his way towards the window*]. A ridgement! Heh! Where be my glasses? Lordy, I can hear the band as plain as plain. Bands don't seem to play as loud now-a-days though as they used. [*Gets to the window.*] Here they come, pioneers, drum-major, band! What be their number, lass? [*His eyes shine, and his feet and stick tap to the music.*]

NORAH. They don't seem to have no number, Uncle. They've something wrote on their shoulders. Oxfordshire, I think it be.

CORPORAL. Ah, yes. I heard as they had dropped the numbers, and given them new-fangled names. [*Shakes his head.*] That wouldn't ha' done for the Dook. The Dook would ha' had a word there. [*Band up to ff.*] There they go, by Jimini. They're young, but they hain't forgot how to march. Blessed if I can see the light bobs though! [*Band dim, to pp.*] Well, they've got the swing, aye, they have the swing [*gazes after them until the last files have disappeared*].

NORAH [*helping him*]. Come back to your chair, Uncle.

CORPORAL. Where be that bottle again. It cuts the phlegm. It's the toobes that's wrong with me. Joyce says so, and he is a clever man. I'm in his club. There's the card, paid up, under yon flat-iron. [*Band stops. Suddenly slapping his thigh.*] Why, darn my skin, I knew as something was amiss.

NORAH. Where, Uncle?

CORPORAL. In them soldiers. I've got it now. They'd forgot their stocks. Not one of them had his stock on [*chuckles and croaks*]. It wouldn't ha' done for the Dook. No, by Jimini, the Dook would ha' had a word there. [*Door opens and SERGEANT appears backoning comrade.*]

NORAH [*peeping towards the door*]. Why, Uncle, this is the soldier who came this morning—one of them with the blue coats and gold braid.

CORPORAL. Eh, and what do he want? Don't stand and stare, lass, but go to the door and ask him what he wants.

[*She approaches the door, which is half open. SERGEANT McDONALD of Artillery, his carbine in his hand, steps over the threshold and salutes.*]

NORAH [*running to him and soothing him*]. Don't Uncle, oh, don't! We can easy get another.

SERGEANT. Don't you fret yourself, sir, if you—you'll do me the honour to accept it. 'Ere's a wooden pipe with an amber mouth.

CORPORAL [*his smiles instantly bursting through his years, SERGEANT gets carbine*]. Jimini! It's a fine pipe! See to my new pipe, gal! I lay that Jarge never had a pipe like this. Eh, and an amber mouth too! [*Mumbles with it in his mouth.*] You've got your firelock there, Sergeant.

SERGEANT. Yes, sir, I was on my way back from the butts when I looked in.

CORPORAL. Let me have the feel of it!

SERGEANT. Certainly. [*Gives carbine.*]

CORPORAL. Lordy, but it seems like old times to have one's hand on a musket. What's the manual, Sergeant? Eh? Cock your firelock! Present your firelock! Look to your priming! Heh, Sergeant! [*The breech on being pressed flies open. NORAH is now top of table looking on.*] Oh, Jimini! I've broke your musket in halves.

SERGEANT [*laughing*]. That's all right, sir! You pressed on the lever and opened the breech-piece. That's where we load 'em, you know.

CORPORAL. Load 'em at the wrong end! Well, well, to think of it! and no ramrod neither. I've heard tell of it, but I never believed it afore. Ah! it won't come up to Brown Bess. When there's work to be done you mark my words, and see if they don't come back to Brown Bess.

SERGEANT [*rising*]. But I've wearied you enough for one sitting. I'll look in again, and I'll bring a comrade

or two with me, if I may, for there isn't one but would be proud to have speech with you. [*Salutes. Exit.*]

My very best respects to you, miss.

NORAH. Oh, Uncle, isn't he noble and fine [*Up to door, looks after him.*]

CORPORAL [*mumbling*]. Too young for the stripes, gal. A sergeant of Gunners should be a growed man. I don't know what we are comin' to in these days. [*Chuckling.*] But he gave me a pipe, Norah! A fine pipe with an amber mouth. I'll lay that brother Jarge never had a pipe like that.

NORAH [*aside nodding towards the door*]. To think that he will be like Uncle in sixty years, and that Uncle was once like him. [*Forward to window L.*] He seems a very kind young man, I think. He calls me "miss" and Uncle "sir", so polite and proper. I never saw as nice a man down Essex way.

CORPORAL. What are you moonin' about, gal! I want you to help me move my chair to the door, or may be you fancy chair will do. It's warm, and the air would hearten me if I can keep back the flies. They get owdacious in this weather and they plague me cruel.

NORAH. The flies, Uncle?

[*He moves feebly across to where the sunshine comes in at the door, and he sits in it. NORAH helps him.*]

CORPORAL. Eh, but it's fine! It always makes me think of the glory to come. Was it to-day that parson was here?

NORAH. No, Uncle. [*Kneels on his L.*]

CORPORAL. Then it was yesterday. I get the days kind o' mixed. He reads to me, the parson does.

NORAH. But I could do that, Uncle.

CORPORAL. You can read too, can you? By Jimini, I never seed such a gal. You can travel by railroad and you can read. Whatever is the world comin' to? It's the Bible he reads to me. [NORAH runs, gets Bible, and kneels again.]

NORAH [*opening the Bible*]. What part would you like to hear?

CORPORAL. Eh? [NORAH repeats.]

CORPORAL. Oh, them wars.

NORAH. The wars!

CORPORAL. Aye, keep to the wars; "Give me the Old Testament, Parson," says I, "there's more taste to it," says I. Parson, he wants to get off to something else, but it's Joshua or nothing with me. Them Israelites was good soldiers, good growed soldiers, all of 'em.

NORAH. But, Uncle, it's all peace in the next world.

CORPORAL. No, it ain't, gal.

NORAH. Oh, yes, Uncle, surely.

CORPORAL [*irritably knocking his stick on the ground*]. I tell ye it ain't gal. I asked Parson.

NORAH. Well, what did he say?

CORPORAL. He said there was to be a last final fight.

NORAH. Fight?

CORPORAL. Why, he even gave it a name, he did. The battle of Arm——Arm——the battle of Arm——

NORAH. Armageddon.

CORPORAL. Aye, that was the name. [*Pauses thoughtfully*.] I'spec's the 3rd Guards will be there. And the Dook—the Dook'll have a word to say. [*Sinks back a little in his chair*. NORAH shuts windows, puts Bible back.]

NORAH. What is it, Uncle? You look tired.

CORPORAL [*faintly*]. Maybe I have had air enough.
And I ain't strong enough to fight agin the flies.

NORAH. Oh, but I will keep them off, Uncle.

CORPORAL. They get owdacious in this weather. I'll get back to the corner. But you'll need to help me with the chair. [*Knock.*] Chairs are made heavier than they used to be.

[*Is in the act of rising when there comes a tap at the door, and COLONEL MIDWINTER (civilian costume) puts in his head.*

COLONEL. Is this Gregory Brewster's?

CORPORAL. Yes, sir. That's my name.

COLONEL. Then you are the man I came to see.

CORPORAL. Who was that, sir?

COLONEL. Gregory Brewster was his name.

CORPORAL. I am the man, sir.

COLONEL. And you are the same Brewster, as I understand, whose name is on the roll of the Scots Guards as having been present at the battle of Waterloo?

CORPORAL. The same Brewster, sir, though they used to call it the 3rd Guards in my day. It was a fine ridgement, sir, and they only want me now to make up a full muster.

COLONEL [*cheerfully*]. Tut! tut! they'll have to wait years for that. But I thought I should like to have a word with you, for I am the Colonel of the Scots Guards.

[CORPORAL springing to his feet and saluting, staggers about to fall. The COLONEL and NORAH prevent it.
NORAH on his L.

COLONEL. Steady, steady. [*Leads BREWSTER to other chair.*] Easy and steady.....

CORPORAL [*sitting down and panting*]. Thank ye, sir.
I was near gone that time. But Lordy, why I can

scarce believe it. To think of me a corporal of the flank company, and you the colonel of the battalion! Lordy, how things do come round to be sure.

[NORAH helps him into chair R. of table. COLONEL gets by fireplace.]

COLONEL. Why, we are very proud of you in London—

CORPORAL. That's what the Regent said. "The Regiment is proud of you," said he.

COLONEL. And so you are actually one of the men who held Hougoumont?

[NORAH sits L. of table with needlework, taken from her basket.]

CORPORAL. Yes, Colonel, I was at Hougoumont.

COLONEL. Well, I hope that you are pretty comfortable and happy.

CORPORAL. Thank ye, sir, I am pretty bobbish when the weather holds, and the flies are not too owdacious. I have a good deal of trouble with my toobes. You wouldn't think the job it is to cut the phlegm. And I need my rations, I get cold without 'em. And my jints, they are not what they used to be.

COLONEL. How's the memory.

CORPORAL. Oh, there ain't anything amiss there. Why, sir, I could give you the name of every man in Captain Haldane's flank company.

COLONEL. And the battle—you remember that?

CORPORAL. Why I sees it afore me, every time I shuts my eyes. Lordy, sir, you wouldn't hardly believe how clear it is to me. There's our line right along from the paregoric bottle to the inhaler, d'ye see! Well then, the pill box is for Hougoumount on the right, where we was, and the thimble for Le Hay Saint. That's all right, sir. [Cocks his head and looks at it with satis-

faction.] And here are the reserves, and here were our guns and our Belgians, then here's the French, where I put my new pipe, and over here where the cough drops are, was the Proosians a comin' up on our left flank. Jimini, but it was a glad sight to see the smoke of their guns. [NORAH *helps him into chair.*]

COLONEL. And what was it that struck you most now, in connection with the whole affair?

CORPORAL. I lost three half-crowns over it, I did. I shouldn't wonder if I were never to get the money now. I lent them to Jabez Smith, my rear-rank man at Brussels. "Grig!" says he, "I'll pay you true, only wait till pay-day." By Jimini, he was struck by a lancer at Quarter Brass, and me without a line to prove the debts. Them three half-crowns is as good as lost to me.

COLONEL [*laughing*]. The officers—of the Guards—want you to buy—yourself—some little trifle, some little present which may add to your comfort. It is not from me, so you need not thank me. [*Slips a note into the old man's baccy pouch. Crosses to leave.*]

CORPORAL. Thank you kindly, sir. But there's one favour I'd ask you. Colonel.

COLONEL. Yes, Corporal, what is it?

CORPORAL. If I'm called, Colonel you won't grudge me a flag and a firing party. I'm not civilian. I'm a Guardsman, and I should like to think as two lines of the bearskins would be walkin' after my coffin.

COLONEL. All right, Corporal, I'll see to it. [CORPORAL *sinks back in his chair.*] I fear that I have tired him. He is asleep, I think. Good-bye my girl; and I hope that we may have nothing but good news from you.
[Exit COLONEL.]

NORAH. Thank you, sir, I'm sure I hope so too. Uncle, Uncle! Yes, I suppose he is asleep. But he is so grey and thin that he frightens me. Oh, I wish I had some one to advise me, for I don't know when he is ill and when he is not.

[*Enter SERGEANT MCDONALD abruptly.*]

SERGEANT. Good day, miss. How is the old gentleman?

NORAH. Oh! He's asleep, I think. But I feel quite frightened about him.

SERGEANT [*going over to him*]. Yes, he don't look as if he were long for this life, do he? May be a sleep like this brings strength to him.

NORAH. Oh, I do hope so.

SERGEANT. I'll tell you why I came back so quick. I told them up at the barracks that I'd given him a pipe, and the others they wanted to be in it too, so they passed round, you understand, and made up a pound of baccy. It's long cavendish, with plenty o' bite to it.

NORAH. How kind of you to think of him!

SERGEANT. Do you always live with him?

NORAH. No, I only came this morning.

SERGEANT. Well, you haven't taken long to get straight.

NORAH. Oh, but I found everything in such a mess.

When I have time to myself I'll soon get it nice.

SERGEANT. That sounds like marching orders to me.

NORAH. Oh, how could you think so!

SERGEANT. Tell me, miss, have you ever been over a barrack?

NORAH. No, I've been on a farm all my life.

SERGEANT. Well, maybe, when he comes up you would come with him? I'd like to show you over.

NORAH. I'm sure I'd like to come.

SERGEANT. Well, will you promise to come?

NORAH [*laughing*]. You seem quite earnest about it.

SERGEANT. Well, maybe I am.

NORAH. Very well, I'll promise to come.

SERGEANT. You'll find us rough and ready.

NORAH. I'm sure it will be very nice.

SERGEANT. Not quite what young ladies are accustomed to.

NORAH. But I am no young lady. I've worked with my hands every day that I can remember.

CORPORAL [*in a loud voice*]. The Guards need powder.

[*Louder*] The Guards need powder! [*Struggles to rise.*]

NORAH. Oh, I am so frightened.

CORPORAL [*staggering to his feet, and suddenly flashing out into his old soldiery figure*]. The Guards need powder, and, by God, they shall have it! [*Falls back into chair. NORAH and the SERGEANT rush towards him.*]

NORAH [*sobbing*]. Oh, tell me, sir, tell me, what do you think of him?

SERGEANT [*gravely*]. I think that the 3rd Guards have a full muster now.

CURTAIN SLOW

THE BISHOP'S CANDLESTICKS

NORMAN MCKINNEL

CHARACTERS

THE BISHOP

THE CONVICT

PERSOME, *the Bishop's sister, a widow.*

MARIE

SERGEANT OF GENDARMES

TIME. *The beginning of last century.*

PLACE. *France about thirty miles from Paris.*

THE BISHOP'S CANDLESTICKS

SCENE—*The kitchen of the BISHOP'S cottage. It is plainly but substantially furnished. Doors R. and L. and L. C. Window R. C. Fireplace with heavy mantelpiece down R. Oak settle with cushions behind door L. C. Table in window R. C. with writing materials and crucifix (wood). Eight-day clock R. of window. Kitchen dresser with cupboard to lock down L. Oak dining table R. C. Chairs, books, etc. Winter wood scene without. On the mantelpiece are two very handsome candlesticks which look strangely out of place with their surroundings.*

[MARIE and PERSOME discovered. MARIE stirring some soup on the fire. PERSOME laying the cloth, etc.]

PERSOME. Marie, isn't the soup boiling yet?

MARIE. Not yet, madam.

PERSOME. Well it ought to be. You haven't tended the fire properly, child.

MARIE. But madam, you yourself made the fire up.

PERSOME. Don't answer me like that. It is rude.

MARIE. Yes, madam.

PERSOME. Then don't let me have to rebuke you again.

MARIE. No, madam.

PERSOME. I wonder where my brother can be. It is after eleven o'clock [*looking at the clock*] and no sign of him. Marie!

MARIE. Yes, madam.

PERSOME. Did M^{on}seigneur the Bishop leave any message for me?

MARIE. No, madam.

PERSOME. Did he tell you where he was going.

MARIE. Yes, madam.

PERSOME. "Yes, madam" [*imitating.*]. Then why haven't you told me, stupid?

MARIE. Madam didn't ask me.

PERSOME. But that is no reason for your not telling me, is it?

MARIE. Madam said only this morning I was not to chatter, so I thought—

PERSOME. Ah, mon Dieu, you thought ! Ah! It is hopeless.

MARIE. Yes, madam.

PERSOME. Don't keep saying "Yes, madam," like a parrot, nincompoop.

MARIE. No, madam.

PERSOME. Well where did monseigneur say he was going?

MARIE. To my mother's madam.

PERSOME. To your mother's indeed! And why, pray?

MARIE. Monseigneur asked me how she was and I told him she was feeling poorly.

PERSOME. You told him she was feeling poorly, did you? And so my brother is to be kept out of his bed, and go without his supper because you told him she was feeling poorly. There's gratitude for you!

MARIE. Madam, the soup is boiling!

PERSOME. Then pour it out, fool, and don't chatter.

MARIE. [*About to do so*]. No, no. Not like that, here let me do it, and do you put the salt-cellars on the table—the silver ones.

MARIE. The 'silver ones, madam?

PERSOME. Yes, the silver ones. Are you deaf as well as stupid?

MARIE. They are sold, madam.

PERSOME. Sold [*with horror*] Sold! Are you mad? Who sold them? Why were they sold?

MARIE. Monseigneur the Bishop told me this afternoon while you were out to take them to Monseieur Gervais who has often admired them, and sell them for as much as I could.

PERSOME. But you had no right to do so without asking me.

MARIE. But, madam, Monseigneur the Bishop told me [*with awe*].

PERSOME. Monseigneur the Bishop is 'a— ahem ! But, but what can he have wanted with the money?

MARIE. Pardon, madam, but I think it was for Mere Gringoire.

PERSOME. Mere Gringoire indeed ! Mere Gringoire ! what, the old witch who lives at the top of the hill, and who says she is bedridden because she is too lazy to do any work? And what did Mere Gringoire want with the money, pray?

MARIE. Madam, it was for the rent. The bailiff would not wait any longer and threatened to turn her out to-day if it were not paid, so she sent little Jean to Monseigneur to ask for help and—

PERSOME. Oh mon Dieu! It is hopeless, hopeless. We shall have nothing left. His estate is sold, his savings have gone. His furniture, everything. Were it not for my little dot we should starve, and now my beautiful—beautiful [*sob*] salt-cellars. Ah, it is too much, too much. [*She breaks down crying*].

MARIE. Madam, I am sorry, if I had known—

PERSOME. Sorry, and why, pray? If Monseigneur the Bishop chooses to sell his salt-cellars he may do so, I suppose. Go and wash your hands, they are disgracefully dirty.

MARIE. Yes, madam [*going towards R.*]

[*Enter the BISHOP, C.*]

BISHOP. Ah, how nice and warm it is in here! It is worth going out in the cold for the sake of the comfort of coming in [*PERSOME has hastened to help him off with his coat, MARIE has dropped a deep curtsy.*] Thank you, dear [*looking at her*]. Why what is the matter? You have been crying. Has Marie been troublesome, eh? [*Shaking his finger at her*] Ah!

Ah!

PERSOME. No, it wasn't Marie—but, but—

BISHOP. Well, well, you shall tell me presently. Marie, my child, run home now, your mother is better, I have prayed with her, and the doctor has been. Run home! [*MARIE putting on cloak and going*]. And, Marie, let yourself in quietly in case your mother is asleep.

MARIE. Oh, thanks, thanks Monseigneur.

[*She goes to door C., as it opens the snow drives in*].

BISHOP. Here, Marie, take my comforter, it will keep you warm. It is very cold to-night.

MARIE. Oh, no, Monseigneur [*shamefacedly*] !

PERSOME. What nonsense, brother, she is young, she won't hurt.

BISHOP. Ah, Persome, you have not been out, you don't know how cold it has become. Here, Marie, let me put it on for you. [*Does so*] There ! Run along, little one.

[*Exit MARIE C.*]

PERSOME. Brother, I have no patience with you. There, sit down and take your soup, it has been waiting ever so long. And if it is spoilt it serves you right.

BISHOP. It smells delicious.

PERSOME. I'm sure Marie's mother is not so ill that you need have stayed out on such a night as this. I believe those people *pretend to be ill* just to have the Bishop call on them. They have no thought of the Bishop.

BISHOP. It is kind of them to want to see me.

PERSOME. Well for my part I believe that charity begins at home.

BISHOP. And so you make me this delicious soup. You are very good to me, sister.

PERSOME. Good to you, yes! I should think so. I should like to know where you would be without me to look after you. The dupe of every idle scamp or lying old woman in the parish.

BISHOP. If people lie to me they are poorer, not I.

PERSOME. But it is ridiculous, you will soon have nothing left. You give away everything, everything!!!

BISHOP. My dear, there is so much suffering in the world, and I can do so little [*sighs*], so very little.

PERSOME. Suffering, yes, but you never think of the suffering you cause to those who love you best, the suffering you -cause to me.

BISHOP. [*rising*]. You, sister dear? Have I hurt you? Ah, I remember you had been crying. Was it my fault? I didn't mean to hurt you. I am sorry.

PERSOME. Sorry. Yes. Sorry won't mend it. Humph! Oh, do go on eating your soup before it gets cold.

BISHOP. Very well, dear. [*Sits.*] But tell me—

PERSOME. You are like a child, I can't trust you out of my sight. No sooner is my back turned than you get that little minx Marie to sell the silver salt-cellars.

BISHOP. Ah, yes, the salt-cellars. It is a pity. You, you were proud of them?

PERSOME. Proud of them, why they have been in our family for years.

BISHOP. Yes, it is a pity they were beautiful, but still, dear, one can eat salt out of china just as well.

PERSOME. Yes, or meat off the floor, I suppose. Oh, it's coming to that. And as for that old wretch Mere Gringoire, I wonder she had the audacity to send her again. The last time I saw her I gave her such a talking to that it ought to have had some effect.

BISHOP. Yes! I offered to take her in here for a day or two, but she seemed think to it might distress you.

PERSOME. Distress me !!!

BISHOP. And the bailiff, who is a very just man, would not wait longer for the rent, so—so—you see I had to pay it.

PERSOME. *You had* to pay it. [*Gesture of comic despair*].

BISHOP. Yes, and you see I had no money so I had to dispose of the salt-cellars. It was fortunate I had them, wasn't it? [*Smiling*] But I'm sorry I have grieved you.

PERSOME. Oh go on ! go on! you are incorrigible. You'll sell your candlesticks next.

BISHOP. [*with real concern*]. No, no, sister, not my candlesticks.

PERSOME. Oh! Why not? They would pay somebody's rent, I suppose.

BISHOP. Ah, you are good, sister, to think of that, but, but I don't want to sell them. You see, dear, my mother gave them to me on—on her deathbed just after you were born, and—and she asked me to keep them in remembrance of her, so I would like to keep them, but perhaps it is a sin to set such store by them?

PERSOME. Brother, brother, you will break my heart [*with tears in her voice*]. There ! don't say anything more. Kiss me and give me your blessing. I'm going to bed. [*They kiss.*]

[BISHOP *making sign of the Cross and murmuring blessing.*]

[PERSOME *locks cupboard door and turns to go*].

PERSOME. Don't sit up too long and tire your eyes.

BISHOP. No, dear! Good night [PERSOME *exits. R.*]

BISHOP. [*comes to table and opens a book, then looks up at the candlesticks*]. They would pay somebody's rent. It was kind of her to think of that.

[*He stirs the fire, trims the lamp, arranges some books and papers, sits down, is restless, shivers slightly, clock outside strikes twelve and he settles to read. Music during this. Enter the CONVICT stealthily, he has a long knife and seizes the BISHOP from behind.*]

CONVICT. If you call out you are a dead man!

BISHOP. But, my friend, as you see, I am reading.

Why should I call out? Can I help you in any way?

CONVICT. [*hoarsely*]. I want food. I'm starving. I haven't eaten anything for three days. Give me food quickly, quickly, curse you.

BISHOP. [*eagerly*]. But certainly, my son, you shall have food. I will ask my sister for the keys of the cupboard.

[*Rising*].

CONVICT. Sit down!!! [*The Bishop sits smiling*]. None of that, my friend! I'm too old a bird to be caught with chaff. You would ask your sister for the keys, would you? A likely story! You would rouse the house too. Eh? Ha ! ha! A good joke truly. Come, where is the food? I want no keys. I have a wolf inside me tearing at my entrails, tearing me; quick tell me where the food is.

BISHOP. [*aside*]. I wish Persomé would not lock the cupboard. [*Aloud*]. Come, my friend, you have nothing to fear. My sister and I are alone here.

CONVICT. How do I know that?

BISHOP. Why, I have just told you.

[CONVICT looks long at the BISHOP]...

CONVICT. Humph! I'll risk it. [BISHOP, going to door R.) But mind! play me false and as sure as there are devils in hell I'll drive my knife through your heart. I have nothing to lose.

BISHOP. You have your soul to lose, my son, it is of more value than my heart. [*At door R. calling*]. Persome. ! Persomé!

[*The CONVICT stands behind him with his knife ready.*]

PERSOME. [*within*]. Yes, brother.

BISHOP. Here is a poor traveller who is hungry. If you are not undressed will you come and open the cupboard and I will give him some supper.

PERSOME [*within*]. What, at this time of night? A pretty business truly. Are we to have no sleep now, but to be at the beck and call of every ne'er-do-well who happens to pass?

BISHOP. But, Persomé, the traveller is hungry.

PERSOME. Oh, very well, I am coming [PERSOME enters
R. sees the knife in the CONVICT's hand]. [*Frightened*],
Brother, what is he doing with that knife?

BISHOP. The knife, oh, well, you see, dear, perhaps he
may have thought that I—I had *sold* ours. [*Laughs*
gently].

PERSOME. Brother, I am frightened. He glares at us
like a wild beast [*aside to him*].

CONVICT. Hungry, I tell you. Give me food or I'll
stick my knife in you both and help myself.

BISHOP. Give me the keys, Persomé, [*she gives them to*
him] and now, dear you may go to bed.

[PERSOME going. *The CONVICT springs in front of her.*]

CONVICT Stop! Neither of you leave this room till I
do.

[*She looks at the BISHOP*]

BISHOP. Persomé, will you favour this gentleman with
your company at supper? He evidently desires
it.

PERSOME. Very well, brother.

[*She sits down at table staring at the two.*]

BISHOP. Here is some cold pie and a bottle of wine and
some bread.

CONVICT. Put them on the table, and stand below it so
that I can see you.

[BISHOP does so and opens drawer in table, taking out knife
and fork, looking at the knife in the CONVICT's hand.]

CONVICT. My knife is sharp. [*He runs his finger along*
the edge and looks at them meaningly]. And as for forks
[*taking it up*], faugh! steel. [*He throws it away*].
We don't use forks in prison.

PERSOME. Prison?

CONVICT. [*cutting off an enormous slice, which he tears with his fingers like an animal, then starts*]. What was that? [*He looks at the door*]. Why the devil do you leave the window unshuttered and door unbarred so that anyone can come in [*shutting them*]?

BISHOP. That is why they are left open.

CONVICT. Well they are shut now !

BISHOP. [*sighs*] For the first time in thirty years. [CONVICT *eats voraciously and throws a bone on the floor*].

PERSOME. Oh, my nice clean floor !

[BISHOP *picks up the bone and puts it on plate*].

CONVICT. You're not afraid of thieves?

BISHOP. I am sorry for them.

CONVICT. Sorry for them Ha ! ha ! [*Drinks from bottle*].

That's a good one. Sorry for them. Ha ! ha !

ha ! [*Drinks*]. [*Suddenly*] What the devil are you?

BISHOP. I am a Bishop.

CONVICT. Ha ! ha ! ha ! A bishop. Holy Virgin, a bishop. Well I'm damned !

BISHOP. I hopw you may escape that, my son. Persomé, you may leave us, this gentleman will excuse you.

PERSOME. Leave you with—

BISHOP. Please ! my friend and I can talk freely then. [*By this time, owing to his starving condition the wine has affected the CONVICT*]

CONVICT. What's that? Leave us. Yes, yes, leave us. Good night. I want to talk to the Bishop. The Bishop. Ha ! ha ! [*Laughs as he drinks and coughs*].

BISHOP. Good night, Persomé.

[*He holds the door open and she goes out R., holding in her skirts as she passes the CONVICT*].

CONVICT. [*chuckling to himself*]. The Bishop. Ha ! ha ! Well I'm—. [*Suddenly very loudly*] D'you know what I am ?

BISHOP. I think one who has suffered much.

CONVICT. Suffered ? [*puzzled*], suffered ? My God, yes. [*Drinks*]. But that's a long time ago. Ha ! ha ! That was when I was a man, now I'm not a man ; now I'm a number : number 15729, and I've lived in hell for ten years.

BISHOP. Tell me about it—about hell.

CONVICT. Why ? [*Suspiciously*] Do you want to tell police—to set them on my track ?

BISHOP. No ! I will not tell the police.

CONVICT. [*looks at him earnestly*]. I believe you [*scratching his head*], but damn me if I know why.

BISHOP. [*laying his hand on the CONVICT's arm*]. Tell ! me about the time—the time before you went to—hell.

CONVICT. It's so long ago I forgot, but I had a little cottage, there were vines growing on it [*dreamily*], they looked pretty with the evening sun on them and—there was a woman—she was [*thinking hard*—she must have been my wife—yes. [*Suddenly and very rapidly*] Yes, I remember ! she was ill, we had no food, I could get no work, it was a bad year, and my wife, Jeanette, was ill, dying [*pause*] so I stole to buy her food. [*Long pause. The BISHOP gently parts his hand*]. They caught me. I pleaded to them, I told them why I stole, but they laughed at me, and I

was sentenced to ten years in the prison hulks, [pause] ten years in hell. The night I was sentenced the gaoler told me—told me Jeanette was dead. [Sobs, with fury] Ah, damn them, damn them, God curse them all.

[*He sinks on the table sobbing*].

BISHOP. Now tell me about the prison-ship, about hell.

CONVICT. Tell you about it? Look here, I was a man once. I'm a beast now, and they made me what I am. They chained me up like a wild animal, they lashed me like a hound. I fed on filth, I was covered with vermin, I slept on boards and I complained. Then they lashed me again. For ten years, ten years. Oh God! They took away my name, they took away my soul, and they gave me a devil in its place. But one day they were careless, one day they forgot to chain up their wild beast, and he escaped. He was free. That was six weeks ago. I was free to starve.

BISHOP. To starve?

CONVICT. Yes, to starve. They feed you in hell, but when you escape from it you starve. They were hunting me everywhere and I had no passport, no name. So I stole again, I stole these rags, I stole my food daily, I slept in the woods, in barns, anywhere. I dare not ask for work, I dare not go into a town to beg, so I stole, and they have made me what I am, they have made me a thief. God curse them all.

[*Empties the bottle and throws it into the fireplace R., smashing it.*]

BISHOP. My son, you have suffered much, but there is hope for all.

CONVICT. Hope ! Hope ! Ha ! ha ! ha ! [*Laughs wildly*].

BISHOP. You have walked far, you are tired. Lie down and sleep on the couch there, and I will get you some coverings.

CONVICT. And if any one comes?

BISHOP. No one will come, but if they do, are you not my friend?

CONVICT. Your friend [*puzzled*]?

BISHOP. They will not molest the Bishop's friend.

CONVICT. The Bishop's friend.

[*Scratching his head, utterly puzzled.*]

BISHOP. I will get the covering. [*Exit L.*]

CONVICT. [*looks after him, scratches his head*]. The Bishop's friend ! [*He goes to the fire to warm himself and notices the candlesticks. He looks round to see if he is alone, and takes them down, weighing them*]. Silver, by God, and heavy. What a prize !

[*He hears the Bishop coming, and in his haste drops one candlestick on the table*].

(*Enter the BISHOP*).

BISHOP. [*sees what is going on but goes to the settle up L. with coverings*]. Ah, you are admiring my candlesticks. I am proud of them. They were a gift from my mother. A little too handsome for this poor cottage perhaps, but all I have to remind me of her. Your bed is ready. Will you lie down now?

CONVICT. Yes, yes, I'll lie down now. [*Puzzled*] Look here, why the devil are you—ki—kind to me [*Suspiciously*] What do you want? Eh?

BISHOP. I want you to have a good sleep, my friend.

CONVICT. I believe you want to convert me; save my soul, don't you call it? Well it's no good, see?

I don't want any damned religion, and as for the Church, bah ! I hate the Church.

BISHOP. That is a pity, my son, as the Church does not hate you.

CONVICT. You are going to try to convert me. Oh, ha ! ha ! that's a good idea. Ha ! ha ! ha ! No, no, Monseigneur the Bishop I don't want any of your Faith, Hope, and Charity, see? So anything you do for me you're doing to the devil, understand [*defiantly*] ?

BISHOP. One must do a great deal for the devil in order to do a little for God.

CONVICT. [*angrily*] I don't want any damned religion I tell you.

BISHOP. Won't you lie down now, it is late?

CONVICT [*Grumbling*]. Well all right, but I won't be preached at, I—I [*On couch*] You're sure no one will come?

BISHOP. I don't think they will, but if they do—you yourself have locked the door.

CONVICT. Humph ! I wonder if it's safe. [*He goes to the door and tries it, then turns and sees the Bishop holding the covering annoyed.*] Here ! you go to bed. I'll cover myself. [*The BISHOP hystates*]. Go on, I tell you.

BISHOP. Good night, my son. [*Exit L.*]

[CONVICT waits till he is off, then tries the Bishop's door].

CONVICT. No lock of course. Curse it. [*Looks round and sees the candlesticks again.*] Humph ! I'll have another look at them. [*takes them up*] and toys with them.] Worth hundreds I'll warrant. If I had these turned into money they'd start me fair. Humph !

The old boy's fond of them too, said his mother gave him them. His mother, yes. They didn't think of my mother when they sent me to hell. He was kind to me too—but what's a bishop for except to be kind to you? Here, cheer up, my hearty, you're getting soft. God! wouldn't my chain-mates laugh to see 15729 hesitating about collaring the plunder because he felt good. Good! Ha! ha! oh my God! God! Ha! ha! ha! 15729 getting soft. That's a good one. Ha! ha! No, I'll take his candlesticks and go. If I stay here he'll preach at me in the morning and I'll get soft. Damn him and his preaching too. Here goes!

[He takes the candlesticks, stows them in his coat, and cautiously exits L. C. As he does so the door slams.]

PERSOME. *[without]*. Who's there? Who's there I say? Am I to get no sleep to-night? Who's there I say? *[Enter R. PERSOME]*. I'm sure I heard the door shut. *[Looking round]*. No one here? *[knocks at the BISHOP's door L. Sees the candlesticks have gone]*. The candlesticks, the candlesticks. They are gone. Brother, brother, come out. Fire, murder, thieves! *[Enter BISHOP, L.]*

BISHOP. What is it, dear, what is it? What is the matter?

PERSOME. He has gone. The man with the hungry eyes has gone, and has taken your candlesticks.

BISHOP. Not my candlesticks, sister, surely not those *[He looks and sighs]*. Ah that is hard, very hard, I, I—He might have left me those. They were all I had. *[Almost breaking down]*.

PERSOME. Well, but go and inform the police. He can't have gone far. They will soon catch him,

and you'll get the candlesticks back again. You don't deserve them, though, leaving them about with a man like that in the house.

BISHOP. You are right, Persomé. It was my fault. I led him into temptation.

PERSOME. Oh, nonsense ! Led him into temptation indeed ! The man is a thief, a common scoundrelly thief. I knew it the moment I saw him. Go and inform the police or I will. [*Going, but he stops her*].

BISHOP. And have him sent back to prison [*very softly*], sent back to hell ! No, Persomè. It is a just punishment for me; I set too great store by them. It was a sin. My punishment is just, but oh God, it is hard, it is very hard. [*He buries his head in his hands*].

PERSOME. No, brother, you are wrong. If you won't tell the police, I will. I will not stand by and see you robbed. I know you are my brother and my bishop and the best man in all France, but you are a fool, I tell you, a child, and I will not have your goodness abused. I shall go and inform the police [*going*].

BISHOP. Stop, Persomé. The candlesticks were mine, they are *his* now. It is better so. He has more need of them than I. My mother would have wished it so had she been here.

PERSOME. But—[*Great knocking without.*]

SERGEANT. [*without*]. Monseigneur, monseigneur, we have something for you, may we enter?

BISHOP. Enter, my son.

[*Enter SERGEANT and three GENDARMES with CONVICT bound. The SERGEANT carries the candlesticks.*]

PERSOME. Ah, so they have caught you, villain, have they?

SERGEANT. Yes, madam, we found this scoundrel slinking along the road, and as he wouldn't give any account of himself we arrested him on suspicion. Holy Virgin, isn't he strong and didn't he struggle? While we were securing him these candlesticks fell out of his pockets. [*PERSOME seizes them, goes to table and brushes them with her apron lovingly*]. I remembered the candlesticks of Monseigneur the Bishop, so we brought him here that you might identify them and then we'll lock him up.

[*The BISHOP and the CONVICT have been looking at each other, the CONVICT with dogged defiance.*]

BISHOP. But, but I don't understand, this gentleman is my very good friend.

SERGEANT. Your *friend* Monseigneur !! Holy Virgin! well !!!

BISHOP. Yes, my friend, he did me the honour to sup with me to-night and I—I have given him the candlesticks.

SERGEANT. [*incredulously*]. You gave him, your candlesticks? Holy Virgin !

BISHOP. [*severely*]. Remember, my son, that she is holy.

SERGEANT. [*saluting*]. Pardon, Monseigneur.

BISHOP. And now I think you may let your prisoner go.

SERGEANT. But he won't show me his papers, he won't tell me who he is.

BISHOP. I have told you he is my friend.

SERGEANT. Yes, that's all very well, But—

BISHOP. He is your Bishop's friend, surely that is enough.

CHARACTERS

A FOOTMAN

LORD CONYNGHAM

THE ARCHBISHOP OF CANTERBURY

MAID-SERVANT

THE DUCHESS OF KENT

QUEEN VICTORIA

THE SIX O'CLOCK CALL

[It is still dark; for in the entrance hall of Kensington Palace the shutters have not yet been unclosed. Behind a wide archway at C. burns a dim light : there is the staircase lobby. To the L. of the archway one sees the foot of the stairs.]

In the dark emptiness goes the clanging of bell, followed by knocks. A FOOTMAN, not quite dressed as he should be, enters carrying a light. He crosses from L. to R. and passes out of view. You hear unchaining and unbolting of a door; then, indistinctly, voices, which grow louder as the visitors enter and become visible. Heavily clocked, LORD CONYNTHAM comes in, followed by the ARCHBISHOP OF CANTERBURY.]

CONYNTHAM. Tell them to take the message at once !

Say the matter is urgent.

FOOTMAN. Yes, my Lord. But Her Royal Highness isn't up yet, my Lord.

CONYNTHAM. "Up?" Of course she's not up at this hour ! Send her Royal Highness's maid to call her.

[The FOOTMAN, having the only candle, is busy now lighting others. But the urgency of his lordship stops the business half-wry; and only one set of candles gets lighted before he goes.]

FOOTMAN. Yes, my lord.

CONYNTHAM. And say His Grace the Archbishop of Canterbury, and Lord Conyntham are here to see Her Royal Highness on important business.

FOOTMAN. Yes, my lord.

CONYNTHAM. Hurry, man ! Hurry !

FOOTMAN. Yes, my lord; but I'll have to call the maid first.

CONYNGHAM. Well, call her !

FOOTMAN. Yes, my lord; but the maids sleep where I'm not supposed to go and the door up to it is locked. I shall have to throw up at the window.

CONYNGHAM. Isn't there a bell?

FOOTMAN. Yes, my lord; in Her Royal Highness the Duchess's room there is a bell.

CONYNGHAM. Well go and ask that it may be rung !

FOOTMAN [*aghast*]. I daren't go to Her Royal Highness the Duchess's room, my lord : not now. Her Royal Highness the Princess is there too.

CONYNGHAM. Well, go and do the best you can. But say Her Royal Highness *must* come—

FOOTMAN. Yes, my lord. [*Exit FOOTMAN*]

CONYNGHAM [*finishing his sentence*].—at once !..Good Lord ! What a house ! Sleeps with the old Cat, does she?

ARCHBISHOP [*corrective, but suave*]. I beg your pardon?

CONYNGHAM. I—I beg yours ! Yes; I suppose one ought'nt to say that now. But your Grace knows that the Duchess has been a difficulty all along.

ARCHBISHOP. The Duchess is a determined character.

CONYNGHAM. Yes.

ARCHBISHOP. It has had its advantages.

CONYNGHAM. They have escaped my observation, I'm afraid.

ARCHBISHOP. The Princess has not seen a great deal of her uncles. Her education has been—safeguarded.

CONYNGHAM [*extenuatingly*]. Well, of course, I know—

ARCHBISHOP [*less extenuatingly*]. Yes, my lord, we *know*.

CONYNGHAM. Had we not better sit down? We may have to wait. If that man's stone-throwing is not good—we may have to wait a long time....So this is how History gets written!

ARCHBISHOP. *This* won't get into History, my lord.

CONYNGHAM. No.....Your Grace?—may I?

[*He offers a flask-cup, after filling it.*]

ARCHBISHOP. Ah no. I thank you.

CONYNGHAM. It's chilly hour to be up. I never go about, late at night, or early—without *something*.

[*Drinks.*]

ARCHBISHOP. For you, my lord, very wise, I've no doubt. But I never go out at night, you see; at least not late.

CONYNGHAM. Ah! I often wish I did'nt, when the night is over.

ARCHBISHOP. That is—understandable.

CONYNGHAM [*missing the note of sympathy*]. It's only human nature, your Grace.

ARCHBISHOP. Yes, I suppose so. I don't know...My office....There is a good deal of human nature that I have to avoid.

CONYNGHAM. Rather difficult to avoid at the Court of the Regency, wasn't it?

ARCHBISHOP. Oh, of course, sometimes I had to—well—look the other way. Still, I attended so seldom; only when called officially.

CONYNGHAM. Your Grace has officiated on a similar painful though auspicious occasion, I believe?

ARCHBISHOP. Yes, Yes. I announced his accession to His late Majesty King William. But he was only in the next room waiting.

CONYNGHAM. Ah! How did he take it?

ARCHBISHOP. With alacrity....“Bless my soul! you don’t say so!” were his first words. And then—“well, well, though I’m less of a figure-head, I shall make a better king than poor George.”

CONYNGHAM. But he didn’t, you know.

ARCHBISHOP. No; a better character, but not a better King. That sometimes happens, I’m afraid.

CONYNGHAM. Yes, kings often manage to do quite well without morals. Brain is more important.

ARCHBISHOP. Not too much of that either, I should have thought. Don’t those with brain give much more trouble to their ministers?

CONYNGHAM. Oh, they manage to do that without any! His late Majesty was a conspicuous example of it. You wouldn’t believe—no, you wouldn’t believe the trouble we sometimes had with him. They say you can make a donkey go by tying a carrot in front of its nose. Well, he was like a donkey with a carrot tied to its tail.

ARCHBISHOP. Really?

CONYNGHAM. Just like that. Over the Reform Bill, you know, we almost had a Revolution—almost. Not *his* fault that we didn’t.

ARCHBISHOP [*discreetly*]. Was he just a little—like his father, you know?

CONYNGHAM. Mad, eh? No, not mad. It was the shape of his head, I think. It was pear-shaped, you know—just like a pear. “The weakest fruit drops earliest to the ground,” says Shakespeare. Well, his head was weak fruit distinctly—amazing how it *hung on*: one can’t exactly say “lasted”.

[*The FOOTMAN re-enters.*]

Well? What have you done?

FOOTMAN. I've called the maid, my lord. Would your lordship like more light?

CONYNGHAM. Oh yes; a little more light would, I suppose, be better. [*Then to the ARCHBISHOP*] For so auspicious an occasion.

FOOTMAN. The windows, my lord?

CONYNGHAM. No, no, not the windows, I think. *The blinds—the blinds* must stay down at any rate.

[*The FOOTMAN lights more candles.*]

ARCHBISHOP [*confidently*]. Very sad, very sad, you know! Good old King George—such a large family—so many sons, and not one of them what he should be.

[*Exit FOOTMAN.*]

CONYNGHAM [*grimly*]. And She—the daughter of one of them.

ARCHBISHOP. Ah, but women are different—so different, you know. Let's hope! Let's hope!

CONYNGHAM. Well, we must get her married, and then—married to the right man—the difference won't so much matter—her cousin, Prince George of Cambridge, would be very suitable—same age, and can talk English now, so I'm told, like a native.

ARCHBISHOP. Over that you will have difficulty with the Duchess.³

CONYNGHAM. Oh, yes; the Duchess is going to be difficult whatever's proposed. She will regard this as her own succession almost.

ARCHBISHOP [*wisely*]. It almost will be.

CONYNGHAM. That is what we must *prevent*.

ARCHBISHOP. The Duchess has privately planned a marriage more to her own liking, I'm told.

CONYNGHAM. Eh? Who?

ARCHBISHOP. She has two nephews—through her brother the Duke of Saxe-Coburg—Prince Ernest, and Prince Albert.

CONYNGHAM. But that won't do ! Tainted blood! Tainted blood!

ARCHBISHOP. Indeed!

CONYNGHAM [*disgustedly*]. Ye--es: bleeding skins—haemophilia. It's in the family. Cousins. No; it won't do.

ARCHBISHOP. But Prince George is her cousin, also.

CONYNGHAM. Ah, but it's not on that side. It's on the mother's—the Coburgs. And, you know, it comes through the women. The males have it: the women don't; but they pass it on. Do you know her brother, the Duke, once nearly bled to death?

ARCHBISHOP. Dear me! Is that so?

CONYNGHAM. Marrying her daughter to *his* son would be fatal! You know, it's all very well, in one way. Royalty to make itself a class all by itself. But it's a German notion: 'tisn't English. And when it leads to so much inbreeding, it gets dangerous. English kings have married commoners in the past; they'd better do it again—or into the peerage. Do you know—if the Duke of Wellington had been—well, twenty years younger, I'd have married her to him.

ARCHBISHOP. You don't mean it!

CONYNGHAM. I do. 'T would have been very popular; and a foreign marriage won't be. [*He looks at his watch.*] Tut, tut ! That girl's a very long time coming!

ARCHBISHOP. [*correctively*]. The Queen!

CONYNGHAM [*plausibly covering his mistake*]. No, no; I mean the maid. I'm wondering whether she has

called her....It's a pity you know, a pity! I don't know what to think of it!

ARCHBISHOP. "It" meaning what?

CONYNGHAM. A female on the throne; a King would have been so much better.

ARCHBISHOP. I don't know, my lord. Heirs male of the last generation have not been a conspicuous success.

CONYNGHAM. No English King has been a conspicuous success since Edward I.

ARCHBISHOP. Yet the monarchy has—gone on.

[Enter MAID-SERVANT].

CONYNGHAM. Yes, but it's gone off.

MAID. I beg your pardon, my lord.

CONYNGHAM. Yes? Well?

MAID. Her Royal Highness, my lord. I went in, but Her Royal Highness was asleep.

CONYNGHAM. Well, you must wake Her Royal Highness up, then.

MAID. Such a beautiful sleep, my lord: I didn't like to.

CONYNGHAM. Even the most beautiful sleep must give way to affairs of State. You know who I am?

MAID. Yes, my lord.

CONYNGHAM. You know His Grace?

MAID. Yes, my lord.

CONYNGHAM. Then go at once: wake Her Royal Highness, and tell her that we are here, waiting—for an audience.

[*Awc struck and submissive, the MAID goes. A clock strikes.*]

Six o'clock. There is to be a Council at ten.

ARCHBISHOP. Where? Here?

CONYNGHAM. At St. James's, I imagine. No, perhaps it will have to be here. She mustn't appear in public yet. 'Twouldn't be quite decent. People might cheer.

[Enter the DUCHESS OF KENT: she is robed rather than dressed; but her heavy negligee has a certain dignity about it. She enters, a conscious "Presence". They rise and bow.]

DUCHESS. Your Grace, my Lord Conyngham, you have news for us?

CONYNGHAM. For Her Royal Highness the Princess, we have news, Madam.

DUCHESS. Ah! The King then——?

CONYNGHAM. Is dead.

DUCHESS. Then my daughter is now——?

CONYNGHAM. Queen.

DUCHESS. It has come, then—at last! And I—I am the Queen Mother !

CONYNGHAM. No, Madam; your Royal Highness is not the Queen Mother.

DUCHESS [*affronted*]. Not?

CONYNGHAM. Your Royal Highness is the Queen's Mother; That is the distinction. Only had your Royal Highness been Queen in the first place, would that other title now follow.

DUCHESS. Then, if it is not mine by your laws, she shall give it me.

CONYNGHAM. That, Madam, I fear, will be impossible.

DUCHESS. Ah! I will go myself and speak to her at once. That shall settle it!

CONYNGHAM. Madam, we are here to see Her Majesty the Queen on urgent business; and we must not

be delayed. Your presence at the interview, Madam, will not be required, unless Her Majesty sends for you.

DUCHESS. Ah! This is not to be borne!

ARCHBISHOP. [*conciliatory.*] Madam, this is a very historic occasion. We are here officially only. Etiquette and immemorial tradition prescribe certain rules which have to be observed. Your Royal Highness would not wish to break them.

CONYNGHAM [*at centre*]. Your Grace, she's coming!

ARCHBISHOP. Then, Madam, for a moment—for a moment only!

[*He opens a side-door and bows the DUCHESS through it. She goes, compelled, but reluctant. The shadow of QUEEN VICTORIA is projected upon the wall of the lobby as she descends. She enters : the ARCHBISHOP and the LORD CHAMBERLAIN kneel and kiss her hand. The side-door opens again; the DUCHESS thrusts in her head; she watches spell-bound.*]

CONYNGHAM. Your Majesty, it is our painful duty to announce to your Majesty—

DUCHESS [*not waiting for the sentence to finish*]. Ah! my daughter, she is Queen—Queen!

[*The curtain slowly descends; after a few seconds it rises again. VICTORIA stands alone at the foot of the stairs. Away to the right ceremoniously backing from the Presence, the ARCHBISHOP and the LORD CHAMBERLAIN make their last bow and go. Into this solemn scene no FOOTMAN intrudes; they let themselves out. At the sound of the shutting door, the side-door opens fully: the DUCHESS enters, and advances rapturously to claim her daughter's homage.*]

VICTORIA [*still a little amazed at the wonder of it all*]. Mama!

DUCHESS [*embracing her*]. My child ! My child ! Oh, my child!

VICTORIA. They came to tell me that I am Queen.

DUCHESS. Yes: you are Queen at last!

VICTORIA. But really Queen—*now*: before I have been crowned?

DUCHESS. Yes: now, at once! The King is dead : you are Queen!

VICTORIA. Then my reign has already begun? I can do—as I like?

DUCHESS. Yes; as you like! Do not mind what anyone says. If you want to do it—do it!

VICTORIA. Oh !.....Then.....Mama. There is something I would like.

DUCHESS. Ah, yes! Say it! It shall be done.

VICTORIA. How strange that it should have all come—so suddenly!

DUCHESS. Yes, so suddenly—after we have waited so long. But now, my love—do not stay here to catch cold. Come back to your own Mother's bed!

VICTORIA. No, Mama dear. As I may now do as I like, I wish in future to have a bed, and a room of my own?

DUCHESS. [*stupent.*] Of your own?

VICTORIA. Yes—please, Mama.

DUCHESS. Oh! so you have been waiting—for *that*!

VICTORIA. I should be glad, if you don't mind—now—that I am my own mistress. Yes, I would rather be — alone. [*She does not wait to hear more.*]

DUCHESS. Mind !....Glad !...Alone !.....O God! What is going to become of me?

[*She stands and watches, while VICTORIA, mistress henceforth of her own destiny, turns and goes quietly upstairs again, having imposed, even now, her wish to be alone for a while.*]

THE MONKEY'S PAW

W. W. JACOBS

Dramatised by

LOUIS N. PARKER

MRS. WHITE. Mean to say he's beaten you at last?

HERBERT. Lor, no ! Why, he's overlooked—

MR. WHITE [*very excited*]. I see it ! Lemme have that back!

HERBERT. Not much. Rules of the game!

MR. WHITE [*disgusted*]. I don't hold with them scientific rules. You turn what ought to be an innocent relaxation—

MRS. WHITE. Don't talk so much, father. You put him off.—

HERBERT [*laughing*]. Not he!

MR. WHITE [*trying to distract his attention*]. Hark at the wind.

HERBERT [*drily*]. Ah ! I'm listening. Check.

MR. WHITE [*still trying to distract him*]. I should hardly think Sergeant-Major Morris'd come to-night.

HERBERT. Mate. [*Rises, goes up L.*]

MR. WHITE [*with an outbreak of disgust and sweeping the chessmen off the board*]. That's the worst of living so far out. Your friends can't come for a quiet chat, and you addle your brains over a confounded—

HERBERT. Now, father! Morris'll turn up all right.

MR. WHITE [*still in a temper*]. Lovers' Lane, Fulham ! Ho ! of all the beastly, slushy, out-o'-the-way places to live in—! Pathway's a bog, and the road's a torrent. [*To MRS. WHITE, who has risen, and is at his side.*] What's the County Council thinking of, that's what I want to know? Because this is the only house in the road it doesn't matter if nobody can get near it, I s'pose.

MRS. WHITE. Never mind dear. Perhaps you'll win to-morrow. [*She moves to back of table.*]

MR. WHITE. Perhaps I'll, perhaps I'll—! What d'you mean? [*Bursts out laughing.*] There ! You always know what's going on inside o'me, don't you, mother?

MRS. WHITE. Ought to, after thirty years, John.
[*She goes to dresser, and busies herself wiping tumblers on tray there.*]

[*He rises, goes to fireplace and lights pipe.*]

HERBERT [*down C.*]. And it's not such a bad place, dad, after all. One of the few old fashioned houses left near London. None o' your stucco villas. Homelike, I call it. And so do you, or you wouldn't ha' bought it. [*Rolls a cigarette*]

MR. WHITE [*R., growling*]. Nice job I made o' that, too! With two hundred pounds owin' on it.

HERBERT [*on back of chair, C.*]. Why, I shall work that off in no time, dad. Matter o'three years, with the rise promised me.

MR. WHITE. If you don't get married.

HERBERT. Not me. Not that sort.

MRS. WHITE. I wish you would, Herbert. A good, steady lad—

[*She brings the tray with a bottle of whisky, glasses, a lemon, spoons, buns, and a knife to the table.*]

HERBERT. Lots o' time, mother. Sufficient for the day—as the sayin' goes. Just now my dynamos don't leave me any time for love-making. Jealous they are, I tell you.

MR. WHITE [*chuckling*]. I lay awake o' night often, and think : If Herbert took a nap, and let his what-d'you-call-ums-dynamos, run down, all Fulham would be in darkness. Lord ! what a joke ! [*Gets R. C.*]

seein' the sort o'night. Well ! [*Waving the glass at them.*] Here's another thousand a year!

MR. WHITE [*sits R. of table, also with a glass.*]. Same to you, and many of 'em.

SERGEANT [*To HERBERT, who has no glass*]. What? Not you?

HERBERT [*laughing and sitting across chair, C.*]. Oh ! 'tishn't for want of being sociable. But my work don't go with it. Nor if 'twas ever so little. I've got to keep a cool head, a steady eye, and a still hand. The fly-wheel might gobble me up.

MRS. WHITE. Don't, Herbert. [*Sits in armchair below fire.*]

HERBERT [*laughing*]. No fear, mother.

SERGEANT. Ah! you electricians !—Sort o' magicians, you are. Light ! says you—and light it is. And, power! says you—and the trams go whizzin'. And, knowledge ! says you—and words go 'ummin' to the ends o' the world. It fair beats me—and I've seen a bit in my time, too.

HERBERT [*nudges his father*]. Your Indian magic? All a fake governor. The fakir's fake.

SERGEANT. Fake, you call it? I tell you. I've seen it.

HERBERT [*nudging his father with his foot*]: Oh, come, now ! such as what? Come, now !

SERGEANT. I've seen a cove with no more clothes on than a babby—[*to Mrs. White*—if you know what I mean—take an empty basket—empty, mind !—as empty as—as this here glass.

MR. WHITE. Hand it over, Morris. [*Hands it to HERBERT, who goes quickly behind table and fills it.*]

SERGEANT. Which was not my intentions but used for illustration.

HERBERT [*while mixing*]. Oh, *I've* seen the basket trick; and I've read how it was done. Why, I could do it myself, with a bit o' practice. Ladle out something stronger.

[HERBERT *brings him the glass.*]

SERGEANT : Stronger?—what do you say to an old fakir chuckin' a rope up in the air—in the air, mind you!—and swarming up it, same as if it was 'ooked on—and vanishing clean out o'sight ?—I've seen *that* [Herbert goes to table, plunges a knife into a bun and offers it to the Sergeant with exaggerated politeness.]

SERGEANT [*eyeing it with disgust*] Bun—? What for?
HERBERT : That yarn takes it.

[*Mr. and Mrs. White delighted.*]

SERGEANT : Mean to say you doubt my word?

MRS. WHITE : No, no ! He's only taking you off.—You should'nt, Herbert.

MR. WHITE : Herbert always was one for a bit o' fun !
[*Herbert puts on table, comes round in front, and moving the chair out of the way, sits cross-legged on the floor at his father's side.*]

SERGEANT : But it's true. Why if I chose, I could tell you things—But there ! you don't get no more yarns out o' me.

MR. WHITE : Nonsense, old friend. [*Puts down his glass.*]
You are not going to get shirty about a bit o' fun.
[*Moves his chair nearer Morris's.*] What was that you started telling me the other day about a monkey's paw, or something ? [*Nudges Herbert, and winks at Mrs. White.*]

SERGEANT [*gravely*]. Nothing. Leastways, nothing worth hearing.

MRS. WHITE [*with astonished curiosity*]. Monkey's paw—?

MR. WHITE : Ah—you was tellin' me—

SERGEANT. Nothing. Don't go on about it. [*Puts his empty glass to his lips—then stares at it.*] What? Empty again? There ! When I begin thinkin' o' the paw, it makes me that absentminded—

MR. WHITE [*rises and fills glass*]. You said you always carried it on you.

SERGEANT. So I do, for fear o'what might happen. [*Sunk in thought.*] Ay !—ay!

MR. WHITE [*handing him glass refilled*] : There. [*Sits again in same chair.*]

MRS. WHITE. What's it for?

SERGEANT. You wouldn't believe me, if I was to tell you.

HERBERT. I will, every word.

SERGEANT. Magic, then !—Don't you laugh !

HERBERT. I'm not. Got it on you now?

SERGEANT. Of course.

HERBERT. Let's see it.

[*Seeing the Sergeant embarrassed with his glass, Mrs. White rises, takes it from him, places it on mantelpiece and remains standing.*]

SERGEANT. Oh, it's nothing to look at. [*Hunting in his pocket.*] Just an ordinary—little paw—dried to a mummy. [*Produces it and holds it towards Mrs. White.*] Here.

MRS. WHITE [*who has leant forward eagerly to see it, starts back with a little cry of disgust.*] Oh!

HERBERT. Give us a look. [*Morris passes the paw to Mr. White, from whom Herbert takes it.*] Why, it's all dried up !

SERGEANT. I said so.

[*Wind*]

MRS. WHITE [*with a slight shudder*]. Hark at the wind!
[*Sits again in her old place.*]

MR. WHITE [*talking the paw from Herbert*]. And what might there be special about it?

SERGEANT [*impressively*]. That the paw has had a spell put upon it!

MR. WHITE. No? [*In great alarm he thrusts the paw back into Morris's hand.*]

SERGEANT [*pensively, holding the paw in the palm of his hand*]. Ah! By an old Fakir. He was a very holy man. He'd sat all doubled up in one spot, goin' on for fifteen years; thinkin' o' things. And he wanted to show that fate ruled people. That everything was cut and dried from the beginning, as you might say. That there wasn't no gettin' away from it. And tha', if you tried to, you caught it hot. [*Pauses solemnly*] So he put a spell on this bit of a paw. It might ha' been anything else, but he took the first thing that, came handy. Ah! He put a spell on it, and made it so that three people [*looking at them and with deep meaning*] could each have three wishes. [*All but Mrs. White laugh rather nervously*]

MRS. WHITE. Ssh! Don't!

SERGEANT [*more gravely*]. But—! But, mark you, though the wishes were granted, those three people would have cause to wish they *hadn't* been.

MR. WHITE. But *how could* the wishes be granted?

SERGEANT. He didn't say. It would all happen so natural, you might think it a coincidence if so disposed.

HERBERT. Why haven't you tried it, sir?

SERGEANT [*gravely, after a pause*]. I have.

HERBERT [*eagerly*]. You've had your three wishes?

SERGEANT [*gravely*]. Yes.

MRS. WHITE. Where they granted?

SERGEANT [*staring at the fire*]. They were.

[*A pause*]

MR. WHITE. Has anybody else wished?

SERGEANT. Yes. The first owner had his three wishes—

[*Lost in recollection*] Yes, oh yes, he had his three wishes all right. I don't know what his first two were,—

[*very impressively*] but the third was for death.

[*All shudder.*] That's how I got the paw.

[*A pause*]

HERBERT [*cheerfully*]. Seems to me you've only got to wish for things that *can't* have any bad luck about 'em—[*rises*]

SERGEANT [*shaking his head*]. Ah !

MR. WHITE [*tentatively*]. Morris—if you've had your three wishes—it's no good to you, now—what do you keep it for ?

SERGEANT [*still holding the paw: looking at it*]. Fancy, I s'pose. I did have some idea of selling it; but I don't think I will. It's done mischief enough already. Besides, people won't buy. Some of 'em think it's a fairy tale. And some want to try it first, and pay after.

[*Nervous laugh from the others.*]

MRS. WHITE. If you could have another three wishes, would you ?

SERGEANT [*slowly—weighing the paw in his hand, and looking at it*]. I don't know—I don't know [*Suddenly, with violence, flinging it in the fire*] No! I'am damned if I would !

[*Movement from all*]

MR. WHITE [*rises and quickly snatches it out of the fire*].

What are you doing?

[*White goes R. C.*]

SERGEANT [*rising and following him and trying to prevent him*]:

Let it burn ! Let the infernal thing burn !

MRS. WHITE [*risés*]. Let it burn father !

MR. WHITE [*wiping it on his coat-sleeve*]. No. If you don't want it, give it to me.

SERGEANT [*violently*]. I won't ! I won't ! My hands are clear of it. I threw it on the fire. If you keep it, don't blame me, whatever happens. Here ! Pitch it back again.

MR. WHITE [*stubbornly*]. I'am going to keep it. What do you say, Herbert ?

HERBERT [*L. C. Laughing*]. I say, keep it if you want to Stuff and nonsense, anyhow.

MR. WHITE [*looking at the paw thoughtfully*]. Stuff and nonsense : Yes. I wonder—[*casually*] —I wish—[*He was going to say some ordinary thing, like "wish I were certain."*]

SERGEANT [*misunderstanding him; violently*]. Stop ! Mind what you're doing. That's not the way.

MR. WHITE. What is the way?

MRS. WHITE [*moving away, up R. C. to back of table, and beginning to put the tumblers straight, and the chairs in their places*]. Oh, don't have anything to do with it, John.

[*Takes glasses on tray to dresser, L., busies herself there, rinsing them in a bowl of water on the dresser, and wiping them with a cloth.*]

SERGEANT. That's what I say, marm. But if I wasn't to tell him, he might go wishing something he didn't mean to. You hold it in your right hand, and wish aloud. -But I warn you ! I warn you!

MRS. WHITE. Sounds like the Arabian Nights. Don't you think you might wish-me four pair o' hands?

MR. WHITE [*laughing*] : Right you are, mother ! —I wish—

SERGEANT [*pulling his arm down*]. Stop it ! If you must wish, wish for something sensible. Look here ! I can't stand this. Gets on my nerves. Where's my coat ? [*Goes into alcove.*]

[*Mr. White crosses to fireplace and carefully puts the paw on the mantelpiece. He is absorbed in it to the end of the tableau*]

HERBERT. I'm coming your way, to the works, in a minute. Won't you wait? [*Goes up C., helps Morris with his coat.*]

SERGEANT [*putting on his coat*]. No, I'm all shook up. I want fresh air. I don't want to be here when you wish. And wish you will as soon's my back's turned. I know. I know. But I've warned you, mind.

MR. WHITE [*helping him into his coat*]. All right, Morris. Don't you fret about us. [*Gives him money*] Here.

SERGEANT [*refusing it*]. No, I won't—

MR. WHITE [*forcing it into his hand*]. Yes, you will. [*Opens door*]

SERGEANT [*turning to the room*]. Well, good-night all. [*To White*] Put it in the fire.

ALL : Good-night.

[*Exit Sergeant. Mr. White closes door, comes towards fireplace, absorbed in the paw.*]

HERBERT [*down L.*]. If there's no more in this than there is in his other stories, we shan't make much out of it.

MRS. WHITE [*comes down R. C. to White*]. Did you give him anything for it, father?

MR. WHITE. A trifle. He didn't want it, but I made him take it.

MRS. WHITE. There now! You shouldn't. Throwing your money about.

MR. WHITE. [*looking at the paw which he has picked up again*]
I wonder—

HERBERT. What ?

MR. WHITE. I wonder, whether we hadn't better chuck it on the fire ?

HERBERT [*laughing*]. Likely ! Why, we're all going to be rich and famous, and happy.

MRS. WHITE. Throw it on the fire, indeed, when you've given money for it! So like you, father.

HERBERT. Wish to be an Emperor, father, to begin with. Then you can't be henpecked !

MRS. WHITE [*going for him front of table with a duster*].
You young——! [*Follows him to back of table*]

HERBERT [*running away from her round behind table*]. Steady with that duster, mother !

MR. WHITE. Be quiet, there ! [*Herbert catches Mrs. White in his arms and kisses her*] I wonder——[*He has the paw in his hand.*] I don't know what to wish for, and that's a fact. [*He looks about him with a happy smile*] I seem to've got all I want.

HERBERT [*With his hands on the old man's shoulders*].
Old dad! if you'd only cleared the debt on the house, you'd be quite happy, wouldn't you ? [*Laughing*]
Well, go ahead !—wish for the two hundred pounds: that'll just do it.

MR. WHITE [*Half laughing*]. Shall I ?

[*Crosses to R. C.*]

HERBERT. Go on ! Here !—I'll play slow music.

[*Crosses to piano.*]

MRS. WHITE. Don't'ee, John. Don't have nothing to do with it !

HERBERT. Now, dad ! [*Plays.*]

MR. WHITE. I will ! [*Holds up the paw, as if half ashamed.*] I wish for two hundred pounds.

[*Crash on the piano. At the same instant Mr. White utters a cry and lets the paw drop.*]

MRS. WHITE }
and } What's the matter ?
HERBERT }

MR. WHITE [*gazing with horror at the paw*]. It moved !
As I wished, it twisted in my hand like a snake.

HERBERT [*goes down R., and picks the paw up*]. Non-sense, dad. Why, it's as stiff as a bone. [*Lays it on the mantelpiece.*]

MRS. WHITE. Must have been your fancy, father.

HERBERT [*laughing*]. Well——? [*Looking round the room.*] I don't see the money; and I bet I never shall.

MR. WHITE [*relieved*]. Thank God, there's no harm done ! But it gave me a shock.

HERBERT. Half-past eleven. I must get along. I'm on at midnight. [*Goes up C., fetches his coat, etc.*]
We've had quite a merry evening.

MRS. WHITE. I'm off to bed. Don't be late for breakfast, Herbert.

HERBERT. I shall walk home as usual. Does me good. I shall be with you about nine. Don't wait, though.

MRS. WHITE. You know your father never waits.

HERBERT. Good-night, mother. [*Kisses her. She lights candle on dresser, L., goes upstairs and exit.*]
[*Coming to his father, R., who is sunk in thought*]. Good-night, dad. You'll find the cash tied up in the middle of the bed.

MR. WHITE [*starting, seizes Herbert's hand*]. It moved, Herbert !

HERBERT. Ah ! And a monkey hanging by his tail from the bed-post, watching you count the golden sovereigns.

MR. WHITE [*accompanying him to the door*]. I wish you wouldn't joke, my boy.

HERBERT. All right, dad. [*Opens door*] Lord ! What weather ! Good-night. [*Exit*]

[*The old man shakes his head, closes the door, locks it, puts the chain up, slips the lower bolt, has some difficulty with the upper bolt*]

MR. WHITE. This bolt's stiff again ! I must get Herbert to look to it in the morning.

[*Comes into the room, puts out the lamp, crosses towards steps; but is irresistibly attracted towards fireplace. Sits down and stares into the fire. His expression changes; he sees something horrible*]

MR. WHITE [*with an involuntary cry*]. Mother ! Mother !

MRS. WHITE [*appearing at the door at the top of the steps with candle*]. What's the matter ? [*Comes down R. C.*]

MR. WHITE [*mastering himself. Rises*]. Nothing—I—haha !—I saw faces in the fire.

MRS. WHITE. Come along.

[*She takes his arm and draws him towards the steps. He looks back frightened towards fireplace as they reach the first step*].

[TABLEAU CURTAIN]

II

[*Bright sunshine. The table, which has been moved nearer the window, is laid for breakfast. Mrs. White busy*

about the table. Mr. White standing in the window looking off R. The inner door is open, showing the outer door].

MR. WHITE. What a morning! Herbert's got for walking home !

MRS. WHITE [L. C.]. What's o'clock ? [*Looks at clock on mantelpiece*] Quarter to nine, I declare. He's off at eight. [*Crosses to fire*]

MR. WHITE. Takes him half-an-hour to change and wash. He's just by the cemetery now.

MRS. WHITE. He'll be here in ten minutes.

MR. WHITE [*coming to the table*]. What's for breakfast ?

MRS. WHITE : Sausages. [*At the mantelpiece*] Why, if here isn't that dirty monkey's paw. [*Picks it up, looks at it with disgust, puts it back. Takes sausages in dish from before fire and places them on table*] Silly thing ! The idea of us listening to such nonsense !

MR. WHITE [*goes up to window again*]. Ay—the Sergeant-Major and his yarns ! I suppose all old soldiers are alike—

MRS. WHITE. Come on, father. Herbert hates us to wait.

[*They both sit and begin breakfast.*]

MRS. WHITE. How could wishes be granted, now a days ?

MR. WHITE. Ah ? Been thinking about it all night, have you ?

MRS. WHITE. You kept me awake, with your tossing and tumbling——

MR. WHITE. Ay, I had a bad night.

MRS. WHITE. It was the storm, I expect. How it blew !

MR. WHITE. I didn't hear it. I was asleep and not asleep, if you know what I mean.

MRS. WHITE. And all that rubbish about its making you unhappy if your wish *was* granted ! How could two hundred pounds hurt you eh, father ?

MR. WHITE. Might drop on my head in a lump. Don't see any other way. And I'd try to bear that. Though, mind you, Morris said it would all happen so naturally that you might take it for a coincidence, if so disposed.

MRS. WHITE. Well—it hasn't happened. That's all I know. And it isn't going to. [*A letter is seen to drop in the letter-box*] And how you can sit there and talk about it—[*Sharp postman's knock : she jumps to her feet*] What's that ?

MR. WHITE. Postman, o' course.

MRS. WHITE [*seeing the letter from a distance; in an awed whisper*]. He's brought a letter, John !

MR. WHITE [*laughing*]. What did you think he'd bring ? Ton o' coals ?

MRS. WHITE. John—! Suppose—?

MR. WHITE. Suppose what ?

MRS. WHITE. Suppose it was two hundred pounds.

MR. WHITE [*suppressing his excitement*]. Eh !—Here ! Don't talk nonsense. Why don't you fatch it ?

MRS. WHITE [*crosses and takes letter out of the box*]. It's thick, John—[*feels it*]—and—and it's got something crisp inside it. [*Takes letter to White, R. C.*]

MR. WHITE. Who—who's it for ?

MRS. WHITE. You.

MR. WHITE. Hand it over, then. [*Feeling and examining it with ill-concealed excitement*] The idea ! What

about the table. Mr. White standing in the window looking off R. The inner door is open, showing the outer door.

MR. WHITE. What a morning Herbert's got for waiting home !

MRS. WHITE [L. C.]. What's o'clock ? [*Looks at clock on mantelpiece*] Quarter to nine, I declare. He's off at eight. [*Crosses to fire*]

MR. WHITE. Takes him half-an-hour to change and wash. He's just by the cemetery now.

MRS. WHITE. He'll be here in ten minutes.

MR. WHITE [*coming to the table*]. What's for breakfast?

MRS. WHITE : Sausages. [*At the mantelpiece*] What if here isn't that dirty monkey's paw. [*Picks it up, looks at it with disgust, puts it back. Takes sausages in dish from before fire and places them on table*] Something ! The idea of us listening to such nonsense !

MR. WHITE [*goes up to window again*]. Ay—the Sergeant-Major and his yarns ! I suppose all old soldiers are alike—

MRS. WHITE. Come on, father. Herbert hates us waiting.

[*They both sit and begin breakfast.*]

MRS. WHITE. How could wishes be granted, in a day ?

MR. WHITE. Ah ? Been thinking about it all night. Have you ?

MRS. WHITE. You kept me awake, with your tossing and tumbling—

MR. WHITE. Ay, I had a bad night.

MRS. WHITE. It was the storm, I expect. How it blew !

MR. WHITE. I didn't hear it. I was asleep and not asleep, if you know what I mean.

MRS. WHITE. And all that rubbish about its making you unhappy if your wish *was* granted ! How could two hundred pounds hurt yon eh, father ?

MR. WHITE. Might drop on my head in a lump. Don't see any other way. And I'd try to bear that. Though, mind you, Morris said it would all happen so naturally that you might take it for a coincidence, if so disposed.

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MR. WHITE [*suppressing his excitement*]. Eh !—Here ! Don't talk nonsense. Why don't you fatch it ?

MRS. WHITE [*crosses and takes letter out of the box*]. It's thick, John—[*feels it*]—and—and it's got something crisp inside it. [*Takes letter to White, R. C.*]

MR. WHITE. Who—who's it for ?

MRS. WHITE. You.

MR. WHITE. Hand it over, then. [*Feeling and examining it with ill-concealed excitement*] The idea ! What

MR. WHITE. Don't let him see you peeping.

MRS. WHITE [*with increasing excitement*]. He's looking at the house. He's got his hand on the latch. No. He turns away again. [*Eagerly.*] John ! He looks like a sort of a lawyer.

MR. WHITE. What of it ?

MRS. WHITE. Oh, you'll only laugh again. But suppose—suppose he's coming about the two hundred—

MR. WHITE. You're not to mention it again !—You're a foolish old woman.—Come and eat your breakfast. [*Eagerly.*] Where is he now ?

MRS. WHITE. Gone down the road. He has turned back. He seems to've made up his mind. Here he comes !—Oh, John, and me all unitdy ! [*Crosses to fire R.*]

MR. WHITE [*to Mrs. White, who is hastily smoothing her hair, etc.*]. What's it matter ? He's made a mistake. Come to the wrong house [*Crosses to fireplace.*]

[*Mrs. White opens the door. Mr. Sampson, dressed from head to foot in solemn black, with a top-hat, stands in the doorway.*]

SAMPSON, [*outside*]. Is this Mr. White's ?

MRS. WHITE. Come in, sir. Please step in. [*She shows him into the room; goes R., he is awkward and nervous.*]

You must overlook out being so untidy; and the room all anyhow; and John in his garden-coat. [*To Mr. White reproachfully*] Oh, John.

SAMPSON [*to Mr. White*]. Morning. My name is Sampson.

MRS. WHITE [*offering a chair*]. Won't you please be seated ?

[*Sampson stands quite still up C.*]

SAMPSON. Ah—thank you—no, I think not—I think not. [*Pause*]

MR. WHITE [*awkwardly, trying to help him*]. Fine weather for the time o' year.

SAMPSON. Ah—yes—yes—[*Pause; he makes a renewed effort*]. My name is Sampson—I've come—

MRS. WHITE: Perhaps you was wishful to see Herbert; He'll be home in a minute.

[*Pointing.*] Here's his breakfast waiting—

SAMPSON [*interrupting her hastily*]. No, no ! [*Pause.*] I've come from the electrical works—

MRS. WHITE. Why, you might have come *with him*. [*Mr. White sees something is wrong, tenderly puts his hand on her arm.*]

SAMPSON. No—no—I've come—*alone*.

MRS. WHITE [*with a little anxiety*]. Is anything the matter ?

SAMPSON. I was asked to call—

MRS. WHITE [*abruptly*] : Herbert ! Has anything happened ? Is he hurt ? Is he hurt ?

MR. WHITE [*soothing her*]. There, there, mother. Don't you jump to conclusions. Let the gentleman speak. You've not brought bad news, I'm sure, sir.

SAMPSON. I'm—sorry—

MRS. WHITE. Is he hurt ?

[*Sampson bows*]

MRS. WHITE. Badly ?

SAMPSON. Very badly. [*Turns away.*]

MRS. WHITE [*with a cry*]. John—! She instinctively moves towards White.

MR. WHITE. Is he in pain?

SAMPSON. He is not in pain.

MRS. WHITE. Oh, thank God! Thank God for that! Thank—[*She looks in a startled fashion at Mr. White—realizes what Sampson means, catches his arm and tries to turn him towards her*] Do you mean—?

[*Sampson avoids her look : she gropes for her husband : he takes her two hands in his, and gently lets her sink into the armchair above the fireplace, then he stands on her right between her and Sampson.*]

MR. WHITE [*hoarsely*]. Go on, sir.

SAMPSON : He was telling his mates a story. Something that had happened here last night. He was laughing, and wasn't noticing and—and—[*hushed*—the machinery caught him—

[*A little cry from Mrs. White, her face shows her horror and agony.*]

MR. WHITE [*vague, holding Mrs. White's hand*]. The machinery caught him—yes—and him the only child—it's hard, sir—very hard—

SAMPSON [*subdued*]. The Company wished me to convey their sincere sympathy with you in your great loss—

MR. WHITE [*staring blankly*]. Our—great—loss—!

SAMPSON : I was to say further—[*as if apologizing*—I am only their servant—I am only obeying orders—

MR. WHITE. Our—great—loss—

SAMPSON [*laying an envelope on the table and edging towards the door*]. I was to say, the Company disclaim all responsibility, but in consideration of your son's

services, they wish to present you with a certain sum as compensation. [*Gets to door.*]

MR. WHITE. Our—great—loss—[*Suddenly, with horror.*]
How—how much ?

SAMPSON [*in the doorway*]. Two hundred pounds
[*Exit*]

[*Mrs. White gives a cry. The old man takes no heed of her, smiles faintly, puts out his hands like a sightless man and drops, a senseless heap, to the floor. Mrs. White stares at him blankly and her hands go out helplessly to wards him.*]

[TABLEAU CURTAIN]

III

[*Night. On the table a candle is flickering at its last gasp. The room looks neglected. Mr. White is dozing fitfully in the armchair. Mrs. White is in the window peering through the blind towards L.*]

[*Mr. White starts, wakes, looks around him*]

MR. WHITE [*fretfully*]. Jenny—Jenny.

MRS. WHITE [*in the window*]. Yes.

MR. WHITE. Where are you ?

MRS. WHITE. At the window.

MR. WHITE. What are you doing ?

MRS. WHITE. Looking up the road.

MR. WHITE [*falling back*]. What's the use, Jenny !
What's the use ?

MRS. WHITE. That's where the cemetery is; that's where we've laid him.

MR. WHITE. Ay—ay—a week to-day—what o'clock is it ?

MRS. WHITE. I don't know.

MR. WHITE. We don't take much account of time now, Jenny, do we ?

MRS. WHITE. Why should we ? He don't come home.
He'll never come home again. There's nothing to
think about—

MR. WHITE. Or to talk about.. [*Pause.*] Come away
from the window; you'll get cold.

MRS. WHITE. It's colder where *he* is.

MR. WHITE. Ay—gone for ever—

MRS. WHITE. And taken all our hopes with him—

MR. WHITE. And all our wishes—

MRS. WHITE. Ay, and all our—[*With a sudden cry*']
John !

[*She comes quickly to him; he rises.*]

MR. WHITE. Jenny ! For God's sake ! What's the
matter ?

MRS. WHITE [*with dreadful eagerness*]. The paw ! The
monkey's paw !

MR. WHITE [*bewildered*]. Where ? Where is it ?
What's wrong with it ?

MRS. WHITE. I want it ! You haven't done away
with it ?

MR. WHITE. I haven't seen it—since—why ?

MRS. WHITE. I want it ! Find it ! Find it !

MR. WHITE [*groping on the mantelpiece*]. Here ! Here it
is ! What do you want of it ? [*He leaves it there*].

MRS. WHITE. Why didn't I think of it ? Why didn't
you think of it ?

MR. WHITE. Think of what ?

MRS. WHITE. The *other two* wishes !

MR. WHITE [*with horror*]. What ?

MRS. WHITE. We've only had one.

MR. WHITE [*tragically*]. Wasn't that enough ?

MRS. WHITE. No ! We'll have one more. [*White crosses to R. C. Mrs. White takes the paw and follows him*].—Take it. Take it quickly. And wish—

MR. WHITE [*avoiding the paw*] Wish what ?

MRS. WHITE. Oh, John ! John ! Wish our boy alive again !

MR. WHITE. Good God ! Are you mad ?

MRS. WHITE. Take it. Take it and wish. [*With a paroxysm of grief.*] Oh, my boy ! My boy !

MR. WHITE. Get to bed. Get to sleep. You don't know what you're saying.

MRS. WHITE. We had the first wish granted—why not the second ?

MR. WHITE [*hushed*]. He's been dead ten days, and—Jenny ! Jenny ! I only knew him by his clothing—if you wasn't allowed to see him then—how could you bear to see him now ?

MRS. WHITE. I don't care. Bring him back.

MR. WHITE [*shrinking from the paw*]. I daren't touch it !

MRS. WHITE [*thrusting it in his hand*]. Here ! Here ! Wish !

MR. WHITE [*trembling*]. Jenny !

MRS. WHITE [*fiercely*]. Wish. [*She goes on frantically whispering "Wish."*]

MR. WHITE [*shuddering, but overcome by her insistence*] : I—I—wish—my—son—alive again. [*He drops it with a cry. The candle goes out. Utter darkness. He sinks into a chair. Mrs. White hurries to the window and draws the blind back. She stands in the moonlight. Pause—*]

MRS. WHITE [*drearily*]. Nothing.

MR. WHITE. Thank God ! Thank God !

MRS. WHITE. Nothing at all. Along the whole length of the road not a living thing. [*Closes blind*]. And nothing, nothing, nothing left in our lives, John.

MR. WHITE. Except each other, Jenny—and memories.

MRS. WHITE [*coming back slowly to the fireplace*]. We're too old. We were only alive in him. We can't begin again. We can't feel anything now, John, but emptiness and darkness. [*She sinks into armchair*].

MR. WHITE. 'Tisn't for long, Jenny. There's that to look forward to.

MRS. WHITE. Every minute's long, now.

MR. WHITE [*rising*] : I can't bear the darkness !

MRS. WHITE: It's dreary—dreary.

MR. WHITE [*crosses to dresser*]. Where's the candle ? [*Finds it and brings it to table*]. And the matches ? Where are the matches : We mustn't sit in the dark. 'Tisn't wholesome. [*Lights match; the other candlestick is close to him*] There. [*Turning with the lighted match towards Mrs. White, who is rocking and moaning*] Don't take on so, mother.

MRS. WHITE. I'm a mother no longer.

MR. WHITE [*lights candle*]. There now; there now. Go on up to bed. Go on, now—I'm a-coming.

MRS. WHITE. Whether I'm here or in bed, or wherever I am, I'm with my boy, I'm with—[*A low single knock at the street door*].

MRS. WHITE [*starting*]. What's that !

MR. WHITE [*mastering his horror*]. A rat. The house is full of 'em.

[*A louder single knock; she starts up. He catches her by the arm*].

Stop ! What are you going to do ?

MRS. WHITE [*wildly*]. It's my boy ! It's Herbert !
I forgot it was a mile away ! What are you holding me for ? I must open the door.

[*The knocking continues in single knocks at irregular intervals, constantly growing louder and more insistent.*]

MR. WHITE [*still holding her*]. For God's sake !

MRS. WHITE [*struggling*]. Let me go !

MR. WHITE. Don't open the door !

[*He drags her towards left front*]

MRS. WHITE. Let me go !

MR. WHITE. Think what you might see !

MRS. WHITE [*struggling fiercely*] : Do you think I fear the child I bore ! Let me go ! [*She wrenches herself loose and rushes to the door which she tears open.*] I'm coming, Herbert ! I'm coming !

MR. WHITE [*cowering in the extreme corner, left front*]. Don't 'ee do it. Don't 'ee do it !

[*Mrs. White is at work on the outer door, where the knocking still continues. She slips the chain, slips the lower bolt, unlocks the door.*]

MRS. WHITE [*suddenly*]. The paw : Where's the monkey's paw ?

[*He gets on his knees and feels along the floor for it.*]

MRS. WHITE [*tugging at the top bolt*]. John ! The top bolt's stuck. I can't move it. Come and help. Quick !

MR. WHITE [*wildly groping*]. The paw ! There's a wish left.

[*The knocking is now loud, and in groups of increasing length between the speeches*]

MRS. WHITE. D'ye hear him ? John ! Your chil'ds knocking !

MR. WHITE. Where is it ? Where did it fall?

MRS. WHITE [*tugging desperately at the bolt*]. Help !
Help ! Will you keep your child from his home?

MR. WHITE. Where did it fall ? I can't find it—I can't find—

[*The knocking is now tempestuous, and there are blows upon the door as of a body beating against it.*]

MRS. WHITE. Herbert ! Herbert ! My boy ! Wait ! Your mother's opening to you ! Ah ! It's moving ! It's moving !

MR. WHITE. God forbid ! [*Finds the paw.*] Ah !

MRS. WHITE [*slipping the bolt*]. Herbert !

MR. WHITE [*has raised himself to his knees ; he holds the paw high*]. I wish him dead. [*The knocking stops abruptly.*] I wish him dead and at peace !

MRS. WHITE [*flung the door open simultaneously*] Herb—
[*A flood of moonlight. Emptiness. The old man sawys in prayer on his knees. The old woman lies half swooning, wailing against the door post.*]

CURTAIN

X=O

A NIGHT OF THE TROJAN WAR

JOHN DRINKWATER

CHARACTERS

PRONAX }
SALVIUS } *Greeks*

ILUS }
CAPYS } *Trojans*

A GREEK SENTINEL

A GREEK SERVANT

A NIGHT OF THE TROJAN WAR

The action passes between a Greek tent and the Trojan walls, and is continuous.

SCENE I—*A Grecian tent on the plain before Troy, towards the end of the ten years' war. It is a starry summer night. PRONAX and SALVIUS, two young Greek soldiers, are in the tent SALVIUS reading by a lighted torch, PRONAX watching the night. During the scene a SENTINEL passes at intervals to and fro behind the tent.*

PRONAX. So is the night often at home. I have seen
White orchards brighten under a summer moon,
As now these tents under the stars. This hour
My father's coppices are full of song.
While sleep is on the comfortable house—
Unless one dear one wakes to think of me
And count my chances when the Trojan death
Goes on its nightly errand. [*The SENTINEL passes.*]

It's a dear home,
And fragrant, and there's blessed fruit and corn,
And thoughts that make me older than my youth.
Come even from the nettles at the gate.
To-day, perhaps, the harvesters are out,
And on the night is the ripe pollen blown.....
And this is the third harvest the has gone
While we have wasted on a barren plain,
To avenge some wrong done in our babyhood
On beauty that we have not seen. Three years....
But so it is, and so it must be done,

Too dreamed, although I caught no lyric song—
 I envy you your song;—I was to build
 A cleaner state ; I dreamed a policy
 Purer than states have known; I was to bring
 Princedom to every hearth, to every man
 Knowledge that he was master of his fate.
 The dream is dulled. Three years of Trojan dust
 Have taught me but to pray at night for sleep.
 And an arm stronger in cunning than my foe's,
 A quicker eye to parry death. And, Salvius,
 What of your songs ?

SALVIUS. Asleep these many days,
 Biding their happy time if that should be.

PRONAX. And death is watching. [*The SENTINEL passes.*]
 and your song, that grew

In the womb of generations for the use
 And joy of men, may perish ere it takes
 Its larger music, that the tale may go
 That Greece drove bloodier war than Ilium;
 That's a poor bargain...But these thoughts that stir
 Like ghosts out of a life that should have been,
 Neglect my duty. It is past the hour
 I should be nosing along the Trojan wall
 To catch what prey may be. I have scarred the wall
 At the bend there where I told you, in the breaking stone,
 These many nights, until at last I've made
 A foothold to the top. It's a queer game,
 This tripping of life suddenly in the dark,
 This blasting of flesh that is wholesome yet in the blood,
 And those who weep, I think, are as those would weep
 If I should fall. I loathe it; but, good-night;
 You should sleep; it is late, and it is your gurd at dawn.
 [*He is arris himself, and wrapping himself in his cloak.*]
 Good-night. What are you reading?

SALVIUS.

Songs that one

Made in my province. The sails are in his song,
And seabirds, and our level pasture-lands,
And the bronzed fishers on the flowing tides.
His name was Creon. I will make such songs
If the years will.

PRONAX [*who has poured himself out and drunk a cup of wine*].

I know. Put out the torch

If you're abed before I come. Good-night.

SALVIUS. Good-night : Good luck.

PRONAX

And will you bid them fill

The trough; this business may made bloody hands.

[*He looks out into the night, and goes.*

[*The SENTINEL passes.*

SALVIUS [*reading*]. Upon the dark Sicilian waves.

The casting fishers go....

CURTAIN

SCENE II—*On Troy wall. CAPYS, a young Trojan soldier, is on guard looking out over the plain where the Greeks are encamped. ILUS, another young soldier, his friend, wearing a bearskin, comes to him.*

ILUS. When does your watch end?

CAPYS.

In two hours; at midnight.

ILUS. They're beautiful, those tents, under the stars.

It is my night to go like a shadow among them,
And, snatching a Greek life, come like a shadow again.
It's an odd skill to have won in the rose of your youth—
Two years, and once in seven days—a hundred,
More than a hundred, and only once a fault.
A hundred, Greek boys, Capys, like myself—
Loving, and quick in honour, and clean of fear—
Spoiled in their beauty by me whose desire is beauty

ILUS. No; there's a use
That's more than courage in this. And, Capys, yet
Those chisels must win your vision into form
For the world's light and ease. It's an ill day
Among ill days that smites the seer's lips.
Your work's to do.

CAPYS. And yours—that deem of Troy
Regenerate, with the heart of the people shown
In the people's life, not lamentably hurt
By men who, mazed with authority, put by
Authority's proper use, and so are evil,
While still the folk under their tyranny keep
Their kindness, waiting upon deliverance.
So may we come together to our work,
In prophecy you of life, creation I.
How long to-night ?

ILUS. Before your watch is done
I shall be back. Here at this point, before
The night is full ; throw me the rope upon
The signal, thus——
[*He whistles. He is climbing over the parapet, to which
he has hooked a rope.*]

Peace with you till I come.

CAPYS. And luck with you. Go warily. Farewell.
[*ILUS drops down to the plain below. CAPYS draws the rope
up. There is silence for a moment.*]

CAPYS [*moving to and fro along the wall*].
Or Greek or Trojan, all is one
When snow falls on our summertime,
And when the happy noonday rhyme
Because of death is left undone.
The bud that breaks must surely pass,
Yet is the bud more sure of May

Than youth of age, when every day
Death is youth's shadow in the glass.

[A hand is seen groping on the parapet. PRONAX, looking cautiously along the wall, draws himself up silently, unseen by CAPYS, who continues.]

Beside us ever moves a hand,
Unseen, of deadly stroke, and when

It falls on youth——

[He hears the movement behind him, and turns swiftly. Who's there ?]

PRONAX *[rushing upon him]*. A Greek unlucky to Trojan arms— A sworn Greek, terrible in obedience.

[His onslaught has overwhelmed CAPYS, who falls without cry, the Greek's dagger in his breast. PRONAX draws it out, looks at his dead antagonist, shudders, peers out over the wall, and very carefully climbs down at the point where he came.]

CURTAIN

SCENE III—*The Greek tent again. SALVIUS is still reading, and the torch burning. A SERVANT brings a large jar of water which he pours into the trough outside the tent. He goes with the jar, and a moment latter the SENTINEL passes behind the tent. There is silence for a few moments, SALVIUS turning the pages of his book. Then, from the shadow in front of the tent, ILUS in his bearskin is seen stealthily approaching. He reaches the tent opening without a sound, and in the same unbroken silence his dagger is in the Greek's heart. ILUS catches the dead man as he falls, and lets his body sink on to one of the couches inside the tent. The SENTINEL passes. ILUS, breathless, waits till the steps have gone, and then, stealthily as he came, disappears.*

THE GOLDEN DOOM

Lord Dunsany (born 1878) is an Irish dramatist and short-story writer. He is interested in the mysterious and the strange. This he suggests by means Celtic or oriental back-grounds, often of his own invention. *The Golden Doom* is an example. It makes fun of the ancient oriental belief in the predictions of astrology. Lord Dunsany's other popular plays are *The Gods of the Mountain* and *A Night at an Inn*. What interests most in these plays is their weird atmosphere. In them we seem to live in a primitive world.

Many names in this play, Zericon, Gyshon, bash, and dahoori, are the writer's own invention.

Babylon : capital of the ancient Chaldean empire which lost its glory about the 6th century B.C.

Thessaly : district of central Greece.

Bash : coined name of drug supposed to be chewed in ancient times as people chew tobacco today.

Loq : abbreviation of the Latin *loquitur*, meaning *speaks*.

Dahoori : coined name of a game.

Larimonas Areelonar : coined words of a magic charm.

And beating it before him with the sceptre : crowns and sceptre, symbols of majesty and power, are to a child mere playthings, a hoop and a stick. Who can say which is the more correct appraisal ?

THE DISCOVERY

Herman Ould, like John Drinkwater, borrows the material for his plays from biography and history. In *Joan the Maid* he fixes upon the life of Joan of Arc, the heroine of Orleans, who rallied the routed French forces to give battle to the English; in *The Pathfinder* upon the life of David Livingstone, the famous English missionary, who carried the light of religion and culture to 'dark' Africa; and here upon the expedition of Columbus to the West Indies in 1492. In each case the attention is focussed not so much on the event itself as on the man or the woman behind it.

Columbus and his men started on their voyage of discovery on August 3, 1492. For two months and more they met with no success. Then the men, who found their hardships unbearable, urged Columbus to sail back home or they would mutiny. But a man of vision that he was, he held his own till land was sighted on the night of October 11, 1492. This memorable event is presented here in dramatic form. But it is the firm resolve of Columbus that holds the attention more than the event. Great men never know defeat.

New World : America.

Santisima Maria : (by) the Most Holy Mary.

The coast of Spain : their home, from where their voyage started.

Madre de Dios : (by) the Mother of God.

Pointed to the North-West : the magnet (mariner's compass) was supposed to point always to the geographical pole or the north; but in this voyage it was discovered that the magnetic north varies from the geographical north in certain parts of the globe's surface. This simple scientific fact was at first supposed to be a portent of ill-luck.

Paneta : A Spanish word meaning literally "bread, straw, straw-hats" Here just an exclamation of surprise, like "Good gracious, I'll be blowed" etc.

Italian renegade : a deserter of his native land Italy. Columbus was an Italian navigator, commissioned by King Ferdinand and Queen Isabella of Spain to sail to the Atlantic.

WATERLOO

Sir Arthur Conan Doyle (1859-1930) is better known as a writer of detective stories than as a playwright. His Sherlock Holmes is the prince of detectives in fiction. But his skill in character delineation is seen in this short play no less than in his stories. Corporal Brewster revives the grim memories of the battle of Waterloo, the last of the battles fought between England and Napoleon, in 1815.

The student is advised to read first the short story by Conan Doyle entitled "A Straggler of '15" of which *Waterloo* is the dramatised version. Through the short story runs only to some sixteen pages.

and being a short story, is itself in concentrated form, when it is adapted into a one act play further economy is required and is effected. The number of characters in the short story is six instead of four : a maid servant and a doctor who figure in the short story are omitted in the play. The time covered by the story is from October to May, and during these months Norah gets to be quite friendly with the sergeant ; but in the play all the incidents are packed into one day, whereby the unity of time as well as place is observed, and the mutual interest in each other of Norah and the sergeant only suggested. The art of the dramatist can be best perceived by a careful comparative study of the short story and the one act play, both of them dealing with the same theme.

R. A. : Royal Artillery.

L. R. (stage directions) : left or right of the actors. *C.* centre of the stage; *R.C.* and *LC.*, to the right or left of the centre of the stage.

Butts : shooting-range.

Napoleon Boneypart : for Napoleon Bonaparte. The English used to refer derisively to Napoleon as "Boney". in the days of the war with him, and the sergeant probably imagines that was the first part of his surname.

Schnapps : alcoholic drink resembling Holland gin.

Gimme : give me. Mark the corporal's pronunciation.

Gal : girl.

Lor : O Lord !

Un : one.

Jimini : Gemini, a constellation appearing like twins.

chousing : tricking, getting the better of (a colloquial expression)

Paregoric : a soothing medicine.

took the shillin : joined the arm.

took the bounty : accepted the gratuity (on joining the army)

Stocks : stiff wide bands of leather as other material formerly worn round the neck.

Dook : duke—the Duke of Wellington who commanded the allied forces at Waterloo.

light bobs : soldiers of light infantry

Toobes : the bronchial tubes that help in breathing.

Card : membership card of the club showing all dues paid up).

Archbishop of Canterbury and Lord Conyngham were here and wished to see me. I got out of bed and went into my sitting room (only in my dressing gown), and alone, and saw them. Lord Conyngham (the Lord Chamberlain) then acquainted me that my poor uncle, the King, was no more and had expired at 12 minutes p. 2 this morning, and consequently that I am Queen".

A point of interest in this play is the Queen's sudden emergence into independence. She had been tyrannically dominated by her mother, the Duchess of Kent. All her movements were watched and at night, even when grown up, she had to sleep in her mother's bed-room.

Kensington Palace : in London.

Her Royal Highness : the Duchess of Kent.

Her uncles : William IV, the King who is just dead, and the Dukes of Sussex, Cumberland, and Cambridge. Their morals were loose.

That man's stone-throwing—said ironically. The absence of bells and easy access to rooms provokes this phrase, as if the footman would have had to hit window panes with stones to attract the attention of the inmates.

I never go out at night...atleast not late—said with a lot of meaning. There is a mild insinuation that Lord Conyngham, like other noble men of the period, was leading too gay a life.

The Court of the Regency : the court of George IV acting as Regent during the insanity of his father, George III, from 1801 to 1820.

Poor George : George IV who was notorious for his loose morals. William IV called himself less of a figurehead because he was conscious that he had a less attractive personality than his elder brother.

Reform Bill : seeking to enlarge the Parliamentary franchise; passed in 1832.

The weakest fruit etc : quoted not quite accurately from *The Merchant of Venice*, Act IV, scene 1, lines 115-16. Shakespeare has "kind of fruit".

one can't exactly say "lasted"—because "lasting" suggests remaining alive, adequate, unexhausted.

The blinds must stay down—as a sign of death in the family.

- Old King George** : George III who had seven sons, including George IV and William IV.
- not one of them what he should be** : not one a model of decency.
- Prince George of Cambridge** : son of the Duke of Cambridge, seventh son of George III. His father lived in Hanover and the son in his early years probably knew no English.
- Ernest and Albert** : maternal cousins of Queen Victoria. She married the latter.
- Duke of Wellington** : the conqueror of the battle of Waterloo, who was 68 years old in 1837.
- Plausibly covering his mistake** : he is very clever in quickly pretending that he meant the maid, not Victoria.
- Stupent** : In a state of stupor or amazement.

THE MONKEY'S PAW

W. W. Jacobs (1863-1944) is a short-story writer and a playwright. His short stories generally relate to shipping and sailors but his most celebrated story, *The Monkey's Paw*, forms a class by itself. It is a tale of horror in the tradition of the 'terror novel. It has been converted into a one-act play by Louis N. Parker. If you read the short story you will find that hardly any change was necessary to convert it into a drama.

In spite of the fact that the theme of the play is horrible, there are many instances of fun and humour. The most characteristic feature of the play however, is dramatic irony—passages with a double meaning, the full significance of which is appreciated only in a second reading of the play by which time the reader knows how the play will end, and can interpret seemingly simple words in the light of what is to come.

Stage directions: for the abbreviations L., R., C., Up. Down. see the notes on *Waterloo* and *The Bishop's Candlesticks*.

'Un : one

Lemme : let me.

Check : announcement by a chess player that the king of the opposite party is now exposed to attack.

world war which shows courage on the part of the dramatist and the producer and their faith in the sanity of the audience. The play is in blank verse.

On beauty: The Greeks invaded Troy when Helen, a Greek princess of surpassing beauty, married to Menelaus, was in his absence carried away by a Trojan prince, Paris, to Troy. The war lasted ten years, resulting in the destruction of Troy and the recovery of Helen.

Argive: of Argos, the dominion ruled by Agamemnon who led the Greek expedition to Troy.

Ionian sea: sea bordering Ionia, a portion of the west coast of Asia Minor.

Pylos: in southern Greece.

Fill the trough: with water, so that if necessary he may wash his hands when he returns.

Illium : Troy

Sea-girl: A statue Capys was intending to make.

Disaster might choose this night so brutally: Dramatic irony.

One too shall come: as I have come here, to discover a friend killed.

There's a pause: as there is no one alive to answer the signal.

I and O propositions together distribute only one term which should be the middle term, therefore they cannot distribute the major term and as such the fallacy of the illicit major will be committed.

25. From the above discussion it becomes evident that in every valid syllogism the premises must contain at least one distributed term more than in the conclusion, because besides the term distributed in the conclusion, the premises must distribute the middle term at least once.

26. 2. According to the second corollary if one premise is particular the conclusion must be particular. The likely combinations are A I, A O, E I. In case of A I they will together distribute only one term which must be the middle term (Rule 3), therefore no term can be distributed in the conclusion (Rule 4) and hence it should be particular.

27. In case of A O, two terms will be distributed in all in the premises. But one of the premises being negative, the conclusion will be negative (Rule 6). Now in the premises one of the distributed terms must be the middle term (Rule 3). Therefore, the conclusion can distribute at most one term i. e. the conclusion being negative it can distribute only its predicate. Therefore it must be an O proposition (particular).

28. An E I combination will together distribute two terms one of which must be the middle term (Rule 3). Therefore the conclusion can distribute at most one term. Now one of the premises being negative, the conclusion will also be negative (Rule 6). But as it can distribute only one term it must be an O (particular) proposition.

These are the only possible cases, because there can be no inference from two negative premises (Rule 5).

29. (3) The third corollary states that from a particular major and a negative minor nothing can be inferred. The minor premise being negative, the major must be affirmative (Rule 5). It is given that it is particular; therefore, it must be an I proposition. Now the minor term being negative the conclusion will also be negative (Rule 6), i. e. it will distribute its predicate (major term). Therefore the major term must be distributed in the major premise also (Rule 4). But the major premise being an I proposition does not distribute any term. Therefore it will be a fallacy of the illicit major or no valid inference can be drawn from a particular major and a negative minor.

30. **Dictum de Omni et nullo:** According to Aristotle, the perfect type of categorical syllogism is that in which the middle term is used as the subject of the major and the predicate of the minor premise i. e. in the form :

$$\begin{array}{r} M - P \\ S - M \\ \hline \therefore S - P \end{array}$$

31. Aristotelian logicians devised methods by which other forms of valid categorical syllogisms could be reduced to the form given above by applying various modes of Immediate Inference to the given premises. Then a general axiom, formulated by Aristotle and which directly applies to this form only, could be used to test the validity of the syllogism. Aristotle held his axiom to be the fundamental principle of syllogistic reasoning. This axiom he called "The Dictum de omni et nullo". Welton states it in the following way :

32. "Whatever is distributively predicated, whether affirmatively or negatively, of any class, may be predicated in like manner (i. e. affirmatively or negatively) of any thing which can be asserted to belong to that class."

33. Whately points out that the **Dictum** signifies :

(1) "Any thing whatever, predicated of a whole class (Major premise)

(2) Under which class some thing else is contained, (Minor premise)

(3) May be predicated of that which is contained" (Conclusion).

34. To take an example, if we take the following syllogism :

All men are imperfect,

All Asians are men,

∴ All Asians are imperfect.

Here the term 'imperfect' is predicated (affirmatively) of the whole class, 'men' in the major premise. The minor premise asserts that the class, 'Asians' are contained in the class 'men'. So in the conclusion the same term ('imperfect') is predicated (in like manner, i. e. affirmatively as in the major premise) of 'Asians.'

35. Similarly in the syllogism :

No men are perfect,

All Asians are men,

∴ No Asians are perfect.

in the major premise, the term 'perfect' is predicated (negatively) of the class 'men'; in the minor premise it is said that the class 'Asians' is contained in the class 'men'. The conclusion therefore predicates the same term 'perfect' in like manner (i. e. negatively as in the major premise) of 'Asians'.

36 As has been observed before, this Dictum applies directly to the First Figure which was regarded by Aristotle as the perfect Figure. Further, all general rules of syllogism can be derived from this Dictum.

Order of questions discussed in this chapter :

- Q. 1. What is Mediate Inference? How Par. 1 to 3.
will you distinguish it from Im-
mediate Inference? (B. U. 1941).
 - Q. 2. What is a syllogism? (B. U. Par. 1 to 3.
1940, and 1950).
 - Q. 3. Discuss the nature, components Par. 4 to 8.
and characteristics of syllogism.
 - Q. 4. What are the different kinds of Para. 9.
syllogisms?
 - Q. 5. State and explain the general Par. 10 to 20.
rules of Syllogisms?
 - Q. 6. What are the 'corollaries of the Par. 21 to 29.
general rules of syllogism?
 - Q. 7. Explain the meaning of "The Par. 30 to 36.
Dictum de omni et nullo" as the
axiom of syllogistic reasoning.
(G. U. 1951).
-

CHAPTER VIII

FIGURES AND MOODS OF SYLLOGISM

1. **Figures** : FIGURE IS THE FORM OF A SYLLOGISM AS DETERMINED BY THE FUNCTION OF THE MIDDLE TERM IN THE TWO PREMISES. The middle term may function as subject or as predicate in either premises. There are thus four possible cases corresponding to which there are **four** figures of a syllogism :

2. In the first figure, M (Middle term) is the subject of the major and predicate of the minor premise.

3. In the second figure, M is the predicate of the major as well as the minor premises.

4. In the third figure, M is the subject of both the premises.

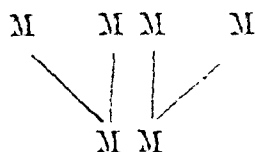
5. In the fourth figure, M is the predicate of the major and subject of the minor premise.

6. Symbolically the four figures can be represented as follows : —

Fig. I	Fig. II	Fig. III	Fig. IV
M—P	P—M	M—P	P—M
S—M	S—M	M—S	M—S
∴ $\overline{S-P}$	∴ $\overline{S-P}$	∴ $\overline{S-P}$	∴ $\overline{S-P}$

7. It should be remembered that the Dictum de omni et nullo is applicable to first figure only, because it was the only figure recognised by the Aristotelian logicians as the perfect figure.

8 The position of M in the four figures can be remembered by :



9. **First Figure as the perfect figure :** There were many good reasons for Aristotle to regard the First Figure as the Perfect Figure. There can be no dispute as to the great importance of the First Figure in science and ordinary life. The Form A A A (*Barbara*) in the First Figure is too familiar and common to need mention. So also the form of arguments usually used in Medicine, Ethics, History, Law and Grammar are more often than not expressed in the First Figure.

10 In addition to these practical considerations, theoretically also First Figure has many advantages over other Figures. To name a few of them :

1. Aristotle's *Dictum de omni et nullo* is directly applicable to it only.

2. All the four propositions—A, E, I, and O can be proved in Fig. I and in no other Figure.

3. The thought process in the First Figure does not undergo any modification or change in passing from the premises to the conclusion because unlike other figures in Fig. I the subject and the predicate of the conclusion are also the subject and predicate in their respective premises.

4. An A proposition can be proved only in Fig. I.

5. The terms Major, Minor and Middle are most aptly applicable to the three terms in Fig. I only in respect of their extension. Thus the Major term has the widest extension or denotation, the Minor term has the narrowest denotation and the Middle term occupies really a middle

position i. e. it has wider extension than the Minor and narrower than the Major term.

11 Special rules of the First Figure :

First Figure :

$$\begin{array}{r} M - P \\ S - M \\ \hline \therefore S - P \end{array}$$

There are TWO RULES OF THE FIRST FIGURE :

1. *The minor premise must be affirmative.*
2. *The major premise must be universal.*

12. Proof: 1. If the minor premise is not affirmative, it will be negative, which means that the conclusion will also be negative. A negative conclusion will distribute its Predicate. This must, therefore, be distributed in the major premise. But P being predicate of the major premise can be distributed only when it is a negative proposition. But minor premise is also negative and there cannot be any inference from two negative propositions. Therefore, the minor premise must be affirmative.

13. 2. The minor premise being affirmative, M remains undistributed because an affirmative predicate never distributes its predicate. But M must be distributed at least once, i. e. it must be distributed in the major premise. But there M is subject and only universal propositions distribute their subjects, hence the major premise must be universal.

14. Special rules of the Second Figure :**Second Figure :**

$$\begin{array}{r} P - M \\ S - M \\ \hline \therefore S - P \end{array}$$

There are TWO RULES OF THE SECOND FIGURE :

1. *One premise must be negative.*
2. *The major premise must be universal.*

15. Proof: 1. The middle term in the second figure is the predicate in both the premises. But the middle term should be distributed at least once. Only a negative proposition distributes its predicate. Therefore one premise must be negative.

16. 2. One premise being negative the conclusion will also be negative. But a negative proposition distributes its predicate. Therefore the predicate of the conclusion (major term) will be distributed. It must accordingly be distributed in the major premise also. There P is the subject. Only universal propositions distribute their subjects. Therefore the major premise must be universal.

17. Special rules of the Third Figure :**Third Figure :**

$$\begin{array}{r} M - P \\ M - S \\ \hline \therefore S - P \end{array}$$

There are TWO RULES OF THE THIRD FIGURE :

1. *The minor premise must be affirmative.*
2. *The conclusion must be particular.*

18. Proof: 1. If the minor premise is not affirmative it will be negative. A negative premise will yield a negative conclusion. A negative conclusion will distribute P which should therefore be also distributed in the major premise. But there P is the predicate. Only a negative premise can distribute its predicate. But the minor premise already being negative, no inference will be possible from two negative premises. Therefore, the minor premise must be affirmative.

19. 2. The minor premise being affirmative S will remain undistributed, it being predicate of the minor premise. Therefore S cannot be distributed in the conclusion also. There it is the subject, therefore, the conclusion must be particular.

20. Special rules of the Fourth Figure :

Fourth Figure :

$$\begin{array}{r} P - M \\ M - S \\ \hline \therefore S - P \end{array}$$

There are THREE RULES OF THE FOURTH FIGURE :

1. *If one premise is negative, the major premise must be universal.*

2. *If the major premise is affirmative, the minor must be universal.*

3. *If the minor premise is affirmative, the conclusion must be particular.*

21. Proof: 1. One premise being negative, the conclusion will also be negative. A negative conclusion will

distribute P which should therefore be distributed in the major premise. There P is the subject. Only universal propositions distribute their subjects. Therefore the major premise must be universal if one of the premises is negative.

22. 2. If the major premise is affirmative, M will remain undistributed because an affirmative proposition never distributes its predicate. But M must be distributed at least once. Therefore it should be distributed in the minor premise. There it is the subject. Only universal propositions distribute their subjects. Therefore, the minor premise must be universal if the major is affirmative.

23. 3. If the minor premise is affirmative S will remain undistributed because it is the predicate of the minor premise. It cannot, therefore, be distributed in the conclusion, where S is the subject. Therefore the conclusion must have an undistributed S or should be particular, if the minor premise is affirmative.

24. Moods of Syllogism : MOOD IS THE FORM OF A SYLLOGISM AS DETERMINED BY THE QUALITY AND QUANTITY OF THE THREE CONSTITUENT PROPOSITIONS, e. g. A A A, E A E, A O O are moods.

25. We have seen that figure is the form of a syllogism as determined by the position of the middle term in the two premises. But we can also determine the form of a syllogism by seeing the quality and quantity of its component parts (three propositions). This is called 'Mood', e. g.

All men are mortal,
All Asians are men,
∴ All Asians are mortal.

Here the figure is First as the middle term is the subject of the major premise and predicate of the minor premise. The mood of this syllogism is A A A because all the three propositions are universal affirmative.

26. All moods are not possible in all figures and therefore to fully describe a syllogism, both its Figure and Mood must be given. Further, a general mood may have specific application in different figures and therefore there are different names for the same general mood according as it is valid in different figures, e. g. the same general Mood E A E in the first figure is called **Celarent** whereas in the second figure it is called **Cesare**. The word 'Mood' is generally applied in this specific sense and not in its general sense.

27. On the basis of quality and quantity we have four propositions A, E, I, and O. There are thus 16 combinations possible out of them :

A A	E A	I A	O A
A E	(E E)	(I E)	(O E)
A I	E I	(I I)	(O I)
A O	(E O)	(I O)	(O O)

Out of these sixteen, eight can be easily rejected as they violate some or the other of the general rules. Thus E E, E O, O E and O O are rejected because two negatives do not yield any conclusion. Similarly, I I, I O, and O I can be rejected because two particular propositions do not give any inference. Again, I E is invalid because from a particular major and a negative minor nothing can be inferred (See Para. 9 of Chapter VII).

28. Therefore only eight combinations will allow valid moods. All these moods, however, are not possible in every figure. Again some of these general moods are valid in more than one figure. In this way, in all the four figures, a total of twenty-four valid moods are possible. The number of moods that can be valid in a figure is determined by applying the General Rules of syllogism as well as special rules of each figure to each one of the above eight general moods:

29. Determination of valid moods of the First Figure.

The possible valid moods are :

A A	A I	E A	(I A)
(AE)	(A O)	E I	(O A)

First Figure :

$$\begin{array}{l} M-P \\ S-M \\ \therefore \overline{S-P} \end{array}$$

30. Rule 1 of the First Figure requires that the minor premise must be affirmative. Therefore A E and A O cannot be valid moods in this figure.

31. Rule 2 requires that the major premise must be universal. Therefore I A and O A cannot be valid moods in Figure One.

32. Now four combinations remain—A A, A I, E A and E I, each one of which is valid in the First Figure. Let us examine each one of them.

33. A I

<u>Darii</u>	All men are mortal,	M a P
<u>A I I</u>	Some animals are men,	S i M
	∴ Some animals are mortal.	S i P

34. Corollary 2 of the General rules says that if one premise is particular the conclusion must be particular. General rule (6) requires that for a negative conclusion a negative premise is required i. e. there can be no negative conclusion from two affirmative premises. Combining these two (corollary 2 and General rule 6) we conclude that the conclusion from A I must be particular affirmative (I). Therefore one of the valid moods of the First Figure is A I I known as *Darii* (the three vowels of this word indicate the mood).

35 A A

<u>Barbara</u>	All men are mortal,	M a P
<u>A A A</u>	All Asians are men,	S a P
	∴ All Asians are mortal	∴ S a P

From two affirmative propositions the conclusion must be affirmative (General rule 6). The conclusion can be universal because in the premises the major premise distributes the middle term while the minor term distributes S and as such S can be distributed in the conclusion also. The second valid mood of the First Figure, therefore, would be A A A known as *Barbara*.

36. E A

<u>Celarent</u>	No men are perfect,	M e P
<u>E A I</u>	All Asians are men,	S a M
	∴ No Asians are perfect.	∴ S e P

One of the premises being negative, the conclusion will be negative (General Rule 6). A negative conclusion will distribute its predicate which is likewise distributed, in the major premise. The middle term is already distributed in the major premise. The conclusion can be universal because S is distributed in the minor premise. Therefore, the third mood of the First Figure would be E A E, known as *Celarent*.

37. E I

	No men are perfect,	M e P
Ferio	Some animals are men,	S i M
E I O	∴ Some animals are-not perfect.	∴ S o P

One of the premises being negative, the conclusion must be negative. S being undistributed in the minor premise cannot be distributed in the conclusion (General rule 4). Therefore the conclusion should be O. The fourth mood of the First Figure, therefore, would be E I O, known as *Ferio*.

38. Summing up these we can say that THERE ARE FOUR VALID MOODS IN THE FIRST FIGURE: A A A, E A E, A I I, and E I O, known as *Barbara*, *Celarent*, *Darii* and *Ferio* respectively.

39. Determination of valid moods of the Second Figure :

The possible valid moods are :

(A A)	(A I)	E A	(I A)
A E	A O	E I	(O A)

Second Figure :

$$\begin{array}{r} P - M \\ S - M \\ \hline \therefore S - P \end{array}$$

40. Rule 1 of the Second Figure requires that one premise must be negative. Therefore, A A and A I cannot form valid moods in this figure.

41. Rule 2 requires that the major premise must be universal. Therefore, I A and O A cannot be valid moods.

42. Remaining moods that are valid in the Second Figure are therefore : E A, A E, E I and A O.

43. E A

$$\begin{array}{l} \text{No P is M} \\ \text{All S is M} \\ \hline \therefore \text{No S is P} \end{array} \qquad \begin{array}{l} \text{Cesare} \\ \hline \text{E A E} \end{array}$$

44. A E

$$\begin{array}{l} \text{All P is M} \\ \text{No S is P} \\ \hline \therefore \text{No S is P} \end{array} \qquad \begin{array}{l} \text{Camestres} \\ \hline \text{A E E} \end{array}$$

45. E I

$$\begin{array}{l} \text{No P is M} \\ \text{Some S is M} \\ \hline \therefore \text{Some S is-not P} \end{array} \qquad \begin{array}{l} \text{Festino} \\ \hline \text{E I O} \end{array}$$

46. A O

$$\begin{array}{l} \text{All P is M} \\ \text{Some S is-not M} \\ \hline \therefore \text{Some S is-not P} \end{array} \qquad \begin{array}{l} \text{Baroco} \\ \hline \text{A O O} \end{array}$$

47. Therefore THE FOUR MOODS VALID IN THE SECOND FIGURE ARE E A E, A E E, E I O and A O O, known as **Cesare**, **Camestres**, **Festino** and **Baroco** respectively.

48. Determination of valid moods of the Third Figure :

The possible valid moods are :

A A	A I	E A	I A
(A E)	(A O)	E I	O A

Third Figure :

$$\begin{array}{r} M-P \\ M-S \\ \hline \therefore S-P \end{array}$$

49. Rule 1 of the Third Figure requires that the minor premise must be affirmative. Thus A E and A O cannot form valid moods in the Third Figure.

50. Rule 2 requires that the conclusion must be particular. The remaining combinations fulfil this requirement, Therefore all of them—A A, I A, A I, E A, O A and E I form valid moods in the Third Figure :

51. A A

$$\begin{array}{r} \text{All M is P} \\ \text{All M is S} \\ \hline \therefore \text{Some S is P} \end{array} \quad \begin{array}{l} \text{Darapti} \\ \hline \text{A A I} \end{array}$$

52. I A

$$\begin{array}{r} \text{Some M is P} \\ \text{All M is S} \\ \hline \therefore \text{Some S is P} \end{array} \quad \begin{array}{l} \text{Disamis} \\ \hline \text{I A I} \end{array}$$

53. A I

$$\begin{array}{r} \text{All M is P} \\ \text{Some M is S} \\ \hline \therefore \text{Some S is P} \end{array} \quad \begin{array}{l} \text{Datisi} \\ \hline \text{A I I} \end{array}$$

54. E A

No	M is	P	
All	M is	S	Felapton
\therefore <u>Some S is-not P</u>			<u>E A O</u>

55. O A

Some	M is-not	P	
All	M is	S	Bocardo
\therefore <u>Some S is-not P</u>			<u>O A O</u>

56. E I

No	M is	P	
Some	M is	S	Ferison
\therefore <u>Some S is-not P</u>			<u>E I O</u>

57. Therefore, THERE ARE SIX VALID MOODS IN THE THIRD FIGURE:—A A I, I A I, A I I, E A O, O A O, E I O, known as **Darapti**, **Disamis**, **Datisi**, **Felapton**, **Bocardo** and **Ferison** respectively.

58. Determination of valid moods of the Fourth Figure :

The possible valid moods are:

A A	(A I)	E A	I A
A E	(A O)	E I	(O A)

Fourth Figure :

P—M
M—S
\therefore <u>S—P</u>

59. Rule 2 of the Fourth Figure requires that if one premise is negative, the major must be universal. Thus O A cannot be valid mood in this figure.

60. Rule 2 of the Fourth Figure requires that if the major premise is affirmative, the minor must be universal. Thus A I and A O cannot form valid moods in this figure.

61. (Rule 3 merely states that if the minor premise is affirmative, the conclusion must be particular).

62. The remaining five combinations—A A, A E, I A, E A and E I fulfil all these requirements; therefore they form valid moods in the Fourth Figure.

63. A A

$$\begin{array}{l} \text{All } P \text{ is } M \\ \text{All } M \text{ is } S \\ \hline \therefore \text{Some } S \text{ is } P \end{array} \quad \begin{array}{l} \text{Bramantip} \\ \hline A \ A \ I \end{array}$$

64. A E

$$\begin{array}{l} \text{All } P \text{ is } M \\ \text{No } M \text{ is } S \\ \hline \therefore \text{No } S \text{ is } P \end{array} \quad \begin{array}{l} \text{Camenec} \\ \hline A \ E \ E \end{array}$$

65. I A

$$\begin{array}{l} \text{Some } P \text{ is } M \\ \text{All } M \text{ is } S \\ \hline \therefore \text{Some } S \text{ is } P \end{array} \quad \begin{array}{l} \text{Dimaris} \\ \hline I \ A \ I \end{array}$$

66. E A

$$\begin{array}{l} \text{No } P \text{ is } M \\ \text{All } M \text{ is } S \\ \hline \therefore \text{Some } S \text{ is-not } P \end{array} \quad \begin{array}{l} \text{Fesapo} \\ \hline E \ A \ O \end{array}$$

67. E I

$$\begin{array}{l} \text{No } P \text{ is } M \\ \text{Some } M \text{ is } S \\ \hline \therefore \text{Some } S \text{ is-not } P \end{array} \quad \begin{array}{l} \text{Fresison} \\ \hline E \ I \ O \end{array}$$

68. Therefore, THERE ARE FIVE VALID MOODS IN THE FOURTH FIGURE: A A I, A E E, I A I, E A O and E I O, known as **Bramantip**, **Camenes**, **Dimaris**, **Fesapo** and **Fresison** respectively.

69. **Strengthened and weakened syllogisms**: Sometimes a distinction is made between a fundamental, a strengthened and a weakened syllogism. This distinction has for its basis the distribution of terms in a syllogism i. e. the quantity of the terms. Rules relating to the quantity of syllogism say that the middle term should be distributed at least once in the premises and that no term should be distributed in the conclusion which is not distributed in the premises. Now it may so happen that the middle term in a syllogism may be distributed twice. Also, a term may be distributed in the premises but may not be distributed in the conclusion. This is in accordance with the principle of sub-alternation whereby if the universal is true the particular must be true but not *vice versa*.

70. Now a syllogism is called fundamental when the distribution of terms in the premises is just sufficient to warrant the conclusion i. e. when in the premises the middle term is distributed only once and no term (minor or major) is distributed which is not distributed in the conclusion.

71. Of the nineteen valid moods, fifteen are fundamental. In the case of *Darapti* (A A I) and *Felapton* (E A O) in the Third Figure, and *Fesapo* (E A O) in the Fourth Figure the middle term is distributed twice. While in *Bramantip* (A A I) in the Fourth Figure the major term is not distributed in the conclusion, but is

distributed in the major premise. These are cases where the premises are quantitatively stronger than what is sufficient for proving the conclusion. These syllogisms are known as **strengthened syllogisms**. Therefore a strengthened syllogism is one in which either the middle term is distributed twice (as in *Darapti*, *Felapton* and *Fesapo*) or in which one of the terms (major or minor) is distributed in the premises in excess of what is necessary to prove the conclusion (as in *Bramantip*). For Example:

$$\begin{array}{rcl} \text{All } P \text{ is } M & & \\ \text{All } M \text{ is } S & & \text{Bramantip} \\ \hline \therefore \text{Some } S \text{ is } P & & \text{IV Figure} \end{array}$$

here the same conclusion can be proved by:

$$\begin{array}{rcl} \text{Some } P \text{ is } M & & \\ \text{All } M \text{ is } S & & \text{Dimaris} \\ \hline \therefore \text{Some } S \text{ is } P & & \text{IV Figure} \end{array}$$

where *P* is not distributed in the major premise. Therefore *Bramantip* is an instance of a strengthened syllogism.

72. On the other hand, if a particular conclusion is drawn from the premises when they justify a universal conclusion, it is a case of **weakened syllogism**. Thus if an *I* conclusion is drawn where an *A* conclusion can be drawn and if an *O* conclusion is drawn where an *E* conclusion can be drawn, it would be a weakened syllogism. For example, in the moods *Barbara* (*A A A*) and *Celarent* (*E A E*) in Figure First, and *Cesare* (*E A E*) and *Camestres* (*A E E*) in Figure Two, and *Camenes* (*A E E*) in Figure Four, it is possible to draw the corresponding particular conclusions, viz. (*A A I*), (*E A O*) and (*A E O*) respectively. In these cases a particular conclusion will be drawn where a universal

is warranted. These are, therefore, weakened syllogisms. These forms are also called **Sub-altern Moods** as their conclusions are the subalterns of the universal conclusions justified by the premises.

73. We can sum up as follows :

Strengthened Syllogisms :

(1) <i>Darapti</i>	III Figure	} Middle Term is distributed twice.
(2) <i>Felapton</i>	IV Figure	
(3) <i>Fesapo</i>	IV Figure	} Major term is distributed in the Major premise, but undistributed in the conclusion.
(4) <i>Bramantip</i>	„	

74. Weakened Syllogisms :

(1) $\bar{A} A A$	I Figure	Corresponding to <i>Barbara</i>
(2) $E A O$	I Figure	„ „ <i>Celarent</i>
(3) $E A O$	II Figure	„ „ <i>Cesare</i>
(4) $A E O$	II Figure	„ „ <i>Camestres</i>
(5) $A E O$	IV Figure	„ „ <i>Camenes</i>

75. **Valid moods :** There are nineteen specific valid moods—four in Figure I, four in Figure II, six in Figure III and five in Figure IV. In addition to them there are five subaltern moods :

76. Nineteen specific valid moods :

$A A A,$	$E A E,$	$A I I,$	$E I O,$	Figure I
$E A E,$	$A E E,$	$E I O,$	$A O O,$	„ II
$A A I,$	$I A I,$	$A I I,$	$E A O,$	Figure III
$O A O,$	$E I O$			
$A A I,$	$A E E,$	$I A I,$	$E A O,$	„ IV
$E I O$				

77. Five subaltern moods :

A A I	—	Figure I
E A O	—	Figure I
E A O	—	Figure II
A E O	—	Figure II
A E O	—	Figure IV

78. Mnemonic lines : It has been long customary to designate the nineteen valid moods by names which compose the following *mnemonic lines* :

Barbara, Celarent, Darii, Ferioque, prioris :
Cesare, Camestres, Festino, Baroco, secundae :
Tertia, Darapti, Disamis, Datisi, Felapton,
Bocardo, Ferison, habet : quarta insuper addit
Bramantip, Camenes, Dimaris, Fesapo, Fresison.

79. Significance of the moods proposition-wise :

A can be proved in only one mood, and only in figure first.

E can be proved in four moods, and in all figures except the third.

I can be proved in six moods, and in all figures, except the second.

O can be proved in eight moods, and in all figures.

80. Significance of the moods figure-wise :

I Figure proves each of the conclusions, A, E, I and O.

II Figure proves only negatives.

III Figure proves only particular propositions.

IV Figure proves all propositions except A.

81. Pure hypothetical syllogisms : Pure hypothetical syllogisms are very similar to Pure categorical syllogisms in their composition and result. Same rules and methods apply to both.

82. The antecedent and consequent of a hypothetical proposition correspond to the subject and predicate of the corresponding categorical proposition respectively. Although the quality of a hypothetical proposition is affirmative, because in it the relation between the antecedent and consequent is expressed; but for practical purposes, the quality of the consequent is taken as the quality of the whole premise. The quantity of a hypothetical proposition is dependent upon the quantity of the antecedent.

83. Like Hypothetical propositions, the pure hypothetical syllogisms can be reduced to pure categorical syllogisms, e. g.

84. Pure Hypothetical Syllogisms :

A	In all cases if M is, P is	
I	In some cases if S is, M is	Darii
I	\therefore In some cases if \overline{S} is, \overline{P} is	I Figure

85. This can be reduced to pure categorical syllogism :

All cases of the existence of M are cases of the existence of P,

Some cases of the existence of S are cases of the existence of M,

∴ Some cases of the existence of S are cases of the existence of P.

86. Pure Disjunctive Syllogisms: Pure Disjunctive Syllogisms are extremely rare. Disjunctive propositions by their very nature being affirmative, THE CONCLUSIONS OF DISJUNCTIVE SYLLOGISMS ARE ESSENTIALLY AFFIRMATIVE.

87. It is questionable whether in actual practice it is possible to draw a conclusion from two purely disjunctive propositions.

88. Again in a purely disjunctive syllogism only affirmative moods are possible. The middle term can be secured only when one of the alternatives in the minor premise negatives one of those in the major premise. Welton remarks: "From

S is either P or Q

S is either P or R

no conclusion can be drawn, except that S is either P or Q or R, which simply sums up the premises. But from

S is either P or Q

S is either P' or Q

we can draw the conclusion S is either Q or R. This will perhaps, be more clearly seen if each premise is expressed as a hypothetical proposition. We can write the premises in the form

If S is P' it is Q

If S is R' it is P'

whence it follows that if S is R', it is Q, which expresses the disjunctive S is either Q or R. Such syllogisms are, however, of infrequent occurrence. As the order of the alternatives is indifferent it will be seen that the distinctions of figure have here no proper application."

—Welton.

The order of questions discussed in this chapter

- | | | | |
|----|----|---|------------------|
| Q. | 1. | Define Figure. How do you determine the number of Figures ?
(B. U. 1945) | Paras. 1 to 8 |
| Q. | 2. | Why is figure I regarded as the perfect Figure ? (G. U. 1952) | Paras. 9, 10. |
| Q. | 3. | State and prove the special rules of First Figure. (B. U. 1942) | Paras. 11 to 13. |
| Q. | 4. | State and prove the rules of the Second Figure. (G. U. 1951) | Paras. 14 to 16 |
| Q | 5. | State and prove the rules of the Third Figure. | Paras. 17 to 19. |
| Q. | 6. | State and prove the rules of the Fourth Figure. | Paras. 20 to 23. |
| Q. | 7. | What is meant by Moods of Syllogisms ? How many valid moods are there ? | Paras. 24 to 28. |
| Q | 8. | What are the valid moods of the First Figure ? How would you determine them ? | Paras. 29 to 38. |

- Q. 9. What are the valid moods of the Second Figure? How would you determine them? Paras. 39 to 47.
- Q. 10. What are the valid moods of the Third Figure? How would you determine them? Paras. 48 to 57.
- Q. 11. What are the valid moods of the Fourth Figure? How would you determine them? Paras. 58 to 68.
- Q. 12. What is meant by Strengthened and Weakened Syllogisms? (G. U. 1951) Paras. 69 to 74.
- Q. 13. Enumerate all the valid moods. Point out their significance proposition-wise and figure-wise. Paras. 75 to 80.
- Q. 14. Write a brief note on Pure Hypothetical and Pure Disjunctive Syllogisms? Paras. 81 to 88.
- Q. 15. Prove that in the Second Figure one premise must be negative and the major premise universal. (G. U. 1952) Paras. 14 to 16.
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CHAPTER IX

REDUCTION

1. Meaning of Reduction : The term Reduction is used in two senses. In a wider sense, it means THE PROCESS BY WHICH A GIVEN SYLLOGISM IS EXPRESSED IN SOME OTHER FIGURE OR MOOD. But generally it is used in a narrower sense to state THE PROCESS BY WHICH A SYLLOGISM IN THE SECOND, THIRD, OR FOURTH FIGURE IS EXPRESSED IN (REDUCED TO) ONE OF THE MOODS IN THE FIRST FIGURE.

2. Importance of Reduction : Aristotle regarded First Figure as the Perfect Figure and his *dictum De omni et nullo* could be directly applied to the First Figure to test the validity of a syllogism. Hence an argument expressed in any other figure was reduced to the First Figure. Now, however, Reduction is considered unnecessary because the second, the third and the fourth figures are now admitted to be as valid as the first.

3. Kinds of Reduction : Reduction is of two kinds : (1) Direct or ostensive and (2) Indirect.

4. Direct reduction : This consists in deducing the original conclusion, in the form of a perfect mood (in the First Figure), from premises derived from those given, through the latter's conversion, obversion, contraposition or transposition. This means that in direct reduction, we prove in the First Figure the same conclusion as in the given syllogism, from premises derived from the given ones.

5. Indirect reduction : This consists in forming a syllogism in the First Figure containing the contradictory of the original conclusion as one of its premises and establishing thereby the validity of the contradictory of one of the given premises. The validity of the given premise being assumed, the illegitimacy of its contradictory proves the illegitimacy of the contradictory of the given conclusion. Thus in Indirect Reduction "a new syllogism is found which establishes the validity of the original conclusion by showing the illegitimacy of its contradictory."—Welton.

Indirect Reduction is also called as *Reduction ad absurdum* or Reduction per impossible.

6. Direct reduction : We have seen the Mnemonic Lines, which were invented by the Latin Schoolmen in the thirteenth century, as being helpful in remembering the valid moods in each figure. These Mnemonic Lines also give rules for carrying out the process of Direct Reduction. For convenience of reference let us repeat these lines :

Barbara, Celarent, Darii, Ferioque, prioris :

Cesare, Camestres, Festino, Baroco (or *Faksoko*), secundae :

Tertia. Darapti, Disamis, Datisi, Felapton,

Bocardo (or *Doksamosk*), *Ferison*, habet : quarta insuper addit.

Bramantip, Camencs, Dimaris, Fesapo, Fresison.

7. The two additional names, given in brackets are used in Direct Reduction, whereas *Baroco* and *Bocardo* are used for Indirect Reduction.

Now in the above Mnemonic lines each word represents a mood, the vowels a, e, i and o indicating

the quality and quantity of the propositions which go to compose them e.g. **Barbara** signifies the mood of the First Figure which is made up of three universal affirmative propositions A A A. But certain consonants in these mnemonic words also indicate how arguments in the second, third or fourth figures may be changed to a mood of the First Figure. These curious and ingenious mnemonic words give rules for carrying out the process of Direct Reduction.

9. The initial letters of the moods in the First Figure are the first four consonants—B, C, D, F. The initial letters of the moods in the other figures indicate that they should be reduced to a mood of the First Figure beginning with the same letter Thus **Ferison** in the Third Figure can be reduced to **Ferioque** in the First Figure.

10. Significance of letters in mnemonic lines :

- s Simple conversion of the preceding proposition.
- p Conversion per accidens of the preceding proposition.
- m metathesis, or transposition, of the premises.
- k Obversion of the preceding proposition.
- ks Obversion followed by conversion—i. e. contraposition of the preceding proposition.
- sk Simple conversion followed by obversion of the preceding proposition.
- c Syllogism cannot be reduced directly, and therefore, should be reduced indirectly.

Thus whenever one of these letters occurs in the middle of a word, one of the premises of the original

syllogism should be changed according to the meaning of these letters. If the change required by these letters is transposition of premises, the conclusion of the new (reduced) syllogism has got to be converted to bring it to the original form. In all these cases of transposition of the premises, the letters *s*, *p*, or *sk* occur at the end indicating the required change in the conclusion.

11. Illustrative examples of Direct Reduction :

(a) Conversion .

(i) The moods *Cesare*, *Festino*, *Datisi* *Ferison* and *Fresison* are reduced to the First Figure by simply converting one, or both of the premises e. g. *Festino* (Fig. II) becomes *Ferioque* (Fig. I).

<u>Festino</u>	P e M ————— M e P	<u>Ferio</u>
Fig. II	S i M ————— S i M	Fig. I
∴	S o P	∴ S o P

Similarly *Fresison* (Fig. IV) will become *Ferio* (Fig. I)

<u>Fresison</u>	P e M ————— M e P	<u>Ferio</u>
Fig. IV	M i S ————— S i M	Fig. I
∴	S o P	∴ S o P

(ii) The moods *Darapti* and *Felapton* are reduced by converting the minor premise per accidens (*p* stands for conversion per accidens). Thus *Darapti* (Fig. III) becomes *Darii* (Fig. I).

<u>Darapti</u>	M a P ————— M a P	<u>Darii</u>
Fig. III	M a S ————— S i M	Fig. I
∴	S i P	∴ S i P

(iii) *Fesapo* (Fig. IV) is reduced to *Ferio* (Fig. I) by the simple conversion of the major premise and the conversion per accidens of the minor premise.

<i>Fesapo</i> Fig. IV	$ \begin{array}{c} P \text{ e } M \text{ ————— } M \text{ e } P \\ M \text{ a } S \text{ ————— } S \text{ i } M \\ \therefore S \text{ o } P \end{array} $	$ \begin{array}{c} \text{Ferio} \\ \text{Fig. I} \end{array} $
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(b) **Transposition of premises :**

(i) The moods *Bramantip*, *Camenes* and *Dimaris* (Fig. IV) are reduced to the First Figure by merely transposing the premises and later converting the conclusion.

<i>Bramantip</i> Fig. IV	$ \begin{array}{c} P \text{ a } M \quad \quad \quad M \text{ a } S \\ \quad \quad \quad \diagdown \quad \quad \diagup \\ \quad \quad M \text{ a } S \quad \quad P \text{ a } M \\ \quad \quad \diagup \quad \quad \diagdown \\ \therefore S \text{ i } P \quad \quad \therefore P \text{ a } S \end{array} $	$ \begin{array}{c} \text{Barbara} \\ \text{Fig. I} \end{array} $
	$ \therefore \text{(by conversion) } S \text{ i } P $	

(ii) *Camestres* (Fig. II) and *Disamis* (Fig. III) are reduced to the First Figure by transposing one premise with the simple converse of the other, e. g. in the case of *Disamis* :

<i>Disamis</i> Fig. III	$ \begin{array}{c} M \text{ i } P \quad \quad \quad M \text{ a } S \\ \quad \quad \quad \diagdown \quad \quad \diagup \\ \quad \quad M \text{ a } S \quad \quad P \text{ i } M \\ \quad \quad \diagup \quad \quad \diagdown \\ \therefore S \text{ i } P \quad \quad \therefore P \text{ i } S \end{array} $	$ \begin{array}{c} \text{Darri} \\ \text{Fig. I} \end{array} $
	$ \therefore \text{(by conversion) } S \text{ i } P $	

(In *Disamis* 's' after 'i' requires simple conversion of 'i' and 'm' after 'a' requires transposition of the premises. In the end 's' after 'i' requires simple conversion of 'i').

(c) **Obversion and Contraposition :**

(i) The mood *Faksoko* (*Baroco*) in Fig. II indicates that it may be reduced to *Ferio* (Fig. I) by contraposition of the major premise and obversion of the minor.

Faksoko (Baroco) Fig. II	P a M ————— M' e P	<u>Ferio</u> Fig. I
	S o M ————— S i M' ∴ <u>S o P</u> ∴ <u>S o P</u>	

(ii) In the same way *Doksamosk* (*Bocardo*) in Fig. III can be reduced to *Darii* (Fig. I) by the contraposition of the major premise and transposition of the premises and by the obversion of the simple converse of the new conclusion.

Doksamosk (Bocardo) Fig. III	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> M o P M a S ∴ <u>S o P</u> </div> <div style="text-align: center;"> M a S P' i M ∴ <u>P' i S</u> </div> </div>	<u>Darii</u> Fig. I
	∴ (by conversion) S i P' ∴ (by obversion) S o P	

12. In the examples given above we have considered cases of Direct or Ostensive Reduction. It is called Direct Reduction because in it, the conclusion, or its equivalent of the imperfect mood, is shown to follow directly from the corresponding mood of the First Figure, the imperfect mood being transformed into its corresponding perfect mood by the application of the rules of immediate inference and transposition of premises, if necessary.

13. Indirect Reduction : Aristotle, however, did not recognise any form of immediate inference except Conversion and owing to this, he resorted to Indirect Reduction of *Baroco* (Fig. II) and *Bocardo* (Fig. III) which could not be reduced directly. (We have seen above how these two moods can be reduced directly by substituting *Falsoko* and *Dolksamosh* respectively for them). In Indirect Reduction we try to prove, with the help of the First Figure that the conclusion of the imperfect mood is valid, by showing the illegitimacy of its contradictory. Unlike Direct Reduction, here we do not prove that the given conclusion follows from a corresponding mood of the First Figure. On the other hand, we establish the truth of the given conclusion, indirectly, by showing that its contradictory is false (with the help of the First Figure and the rules of opposition), and therefore the given conclusion must be true.

14. Illustrative examples of Indirect Reduction :

(a) *Baroco* is proved valid by a syllogism in *Barbara*. We argue like this : If the conclusion $S \text{ o } P$ is false (formally) then its contradictory $S \text{ a } P$ must be true (formally). By replacing the premise (o) followed by c by this contradictory of the original ($S \text{ a } P$) we get the following syllogism in *Barbara*, with P as its middle term :

Baroco	$P \text{ a } M$	$P \text{ a } M$	Barbara
Fig. II	$S \text{ o } M$	$\dagger S \text{ a } P$	Fig. I
	$\therefore S \text{ o } P$	$\therefore S \text{ a } M$	

This means that if $S \text{ a } P$ (contradictory of the original conclusion) is true, then the new conclusion $S \text{ a } M$ must also be true. But $S \text{ a } M$ is the contradictory of $S \text{ o } M$ (which is one of the given premises) and therefore it must be

false. If $S a M$ is false (formally) then $S a P$ must also be false, (formally), hence its contradictory $S o P$ (conclusion of the original syllogism) must be true (formally). This establishes that *Baroco* is a valid mood.

(b) *Bocardo* can be similarly reduced indirectly. Supposing that the conclusion $S o P$ is false (formally), its contradictory $S a P$ must be true (formally). Substituting $S a P$ for the major premise (premise followed by c) we get the following syllogism in *Barbara* with S as its middle term:

$$\begin{array}{rcccl}
 \text{Bocardo} & & M o P & & +S a P \\
 \text{Fig. III} & & \underline{M a S} & & \underline{M a S} \\
 & \therefore & S o P & \quad \quad & +\therefore \underline{M a P} \\
 & & & & \text{Barabara} \\
 & & & & \text{Fig. I.}
 \end{array}$$

Here, the new conclusion $M a P$ contradicts the given premise $M o P$ and must therefore be false (formally). If the conclusion $M a P$ is false (formally), the premise $S a P$ must also be false (formally). If $S a P$ is false, its contradictory $S o P$ (original conclusion) must be true (formally), i. e. *Bocardo* is a valid mood.

15. Reduction of pure hypothetical syllogism: Pure Hypothetical Syllogism can be reduced in exactly the same way as pure Categorical Syllogism. The same rules and methods apply to both the cases. To take an example:

$$\begin{array}{rcl}
 \text{If } S \text{ is } R, \text{ then never is it } P & & \text{Festino} \\
 \text{If } S \text{ is } M, \text{ then sometimes it is } P & & \text{Fig. II.} \\
 \therefore \text{ If } S \text{ is } M, \text{ then sometimes it is not } R & &
 \end{array}$$

can be reduced by simply converting the major premise

If S is P, then never is it R	Ferio
If S is M, then sometimes is it P	<u>Fig. I.</u>
\therefore If S is M, then sometimes it is not R.	

Order of questions discussed in this chapter:

- Q. 1. What is Reduction? Distinguish between Direct and Indirect Reduction. (G. U. 1951) Paras. 1 to 5.
- Q. 2. What is the importance of Reduction? (G. U. 1952) Paras. 1, 2.
- Q. 3. What is the explanation and the importance of the Mnemonic Lines. Paras. 6 to 10.
- Q. 4. How will you reduce the various moods directly? Illustrate your answer. Paras. 11, 12.
- Q. 5. Explain Indirect Reduction and illustrate your answer. Paras. 13, 14.
- Q. 6. Reduce *Bocardo* directly and indirectly (G. U. 1952). Paras. 11 (c) (ii) and 14(b).
- Q. 7. How will you reduce pure hypothetical syllogisms? Para. 15.
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CHAPTER X

MIXED SYLLOGISMS

1. **Mixed hypothetical syllogism :** A MIXED HYPOTHETICAL SYLLOGISM IS ONE WHICH HAS GOT A HYPOTHETICAL PROPOSITION AS ITS MAJOR PREMISE AND A CATEGORICAL PROPOSITION AS ITS MINOR PREMISE :-

If it rains, the college is closed,	Hypothetical
It rains,	Categorical
<hr/>	
∴ The college is closed.	

2. **Kinds of mixed hypothetical syllogisms :**

There are two possible cases of a mixed hypothetical syllogism. The major premise being always affirmative the minor premise can either (1) affirm the antecedent, or (2) deny the consequent, e. g.

(1)

If it rains,	the college is closed
<u>Antecedent</u>	<u>Consequent</u>
<u>It rains (affirming the antecedent)</u>	

∴ The college is closed. (Affirmative)

(2)

If it rains,	the college is not open
<u>Antecedent</u>	<u>Consequent</u>
<u>The college is open (denying the consequent)</u>	

∴ It does not rain. (Negative)

3. It will be seen that in the first case where the antecedent is affirmed the conclusion affirms the consequent, whereas in the second case where the consequent is denied the conclusion denies the antecedent. There are therefore two broad divisions of the mixed hypothetical syllogisms—(1) that which affirms the antecedent is called the **CONSTRUCTIVE HYPOTHETICAL**

SYLLOGISM or the **Modus ponens** and (2) that which denies the consequent is called the **DESTRUCTIVE HYPOTHETICAL SYLLOGISM** or the **Modus tollens**.

4. A further sub-division is made of the **Modus ponens** and the **Modus tollens** on the basis of the quality of the minor premise and the conclusion. Thus each of them is divided into four sub-classes.

5. (I) **Modus ponens** : (The minor premise affirms the antecedent).

(a) **Modus ponendo ponens** : Where the minor premise and the conclusion both are affirmative, e. g.

If the rain falls, the college is closed

The rain falls _____ (Affirmative)

∴ The college is closed (Affirmative).

(b) **Modus ponendo tollens** : Where the minor premise is affirmative and the conclusion is negative, e. g.

If the rain falls, the College is not open

-- The rain falls (Affirmative)

∴ The college is not open. (Negative)

(c) **Modus tollendo ponens** : Where the minor premise is negative and the conclusion is affirmative, e. g.

If the rain does not fall, the college is open.

The rain does not fall (Negative)

∴ The college is open (Affirmative)

(d) **Modus tollendo tollens**: Where both the minor premise and the conclusion are negative, e. g.

If the rain does not fall, the college does not close.

The rain does not fall (Negative)

∴ The college does not close (Negative)

Similarly, *Modus Tollens* is sub-divided into four kinds:

6 (2) **Modus tollens**: (The minor premise denies the consequent.):

(a) **Modus tollendo tollens**: Where both the minor premise and the conclusion are negative, e. g.

If the rain falls, the college is closed.

The college is not closed (Negative)

∴ The rain does not fall (Negative)

(b) **Modus ponendo tollens**: Where the minor premise is affirmative and the conclusion is negative, e. g.

If the rain falls, the college is not open.

The college is open (Affirmative)

∴ The rain does not fall (Negative)

(c) **Modus tollendo ponens**: Where the minor premise is negative and the conclusion is affirmative, e. g.

If the rain does not fall, the college is open.

The college is not open (Negative)

∴ The rain falls. (Affirmative)

(d) **Modus ponendo ponens**: Where both the minor premise and the conclusion are affirmative, e. g.

If the rain does not fall, the college is not closed

The college is closed (Affirmative)

∴ The rain falls (Affirmative)

Therefore, there are in all eight forms of mixed hypothetical syllogisms—four of the **modus ponens** kind and four of the **modus tollens** kind.

8. Rules of Hypothetical Syllogism: There is only one general rule for the hypothetical syllogism: **THE MINOR PREMISE MUST EITHER AFFIRM THE ANTECEDENT OR DENY THE CONSEQUENT.**

9. From this it follows that if the minor term affirms the antecedent the conclusion will affirm the consequent and if it denies the consequent, the conclusion will deny the antecedent.

10. Fallacies: Violation of this rule (or rules) gives rise to the fallacies of (1) **denying the antecedent** and (2) **affirming the consequent**:

If the rain falls, the college will be closed

The rain does not fall

∴ The college will not be closed.

Here the **antecedent is denied** and the argument is plainly false, for we cannot infer that the falling of the rain is the only case when the college will be closed. In other words we do not know that the antecedent stated here is the only, or essential condition of the consequent. Similarly the argument

If the rain falls, the college will be closed

The college is closed

∴ The rain falls

is also false for the same reason although the fallacy here is that of **affirming the consequent**. If the college is closed it does not follow that it is only because the rain falls.

11. If we know that the antecedent is the only condition of the consequent or if the antecedent is qualified by the word 'only' or some equivalent expression, then the violation of these rules does not result into any fallacy.

12. It should be noted that IF THE ANTECEDENT OR THE CONSEQUENT OF THE MAJOR PREMISE IS NEGATIVE, THEIR AFFIRMATION WILL BE NEGATIVE, WHILE THEIR DENIAL WILL BE AFFIRMATIVE IN FORM.

13. **Relation of Categorical and Hypothetical Syllogism:** A hypothetical syllogism can be reduced into a pure categorical syllogism. In that case, the fallacy of denying the antecedent will become the fallacy of the illicit major term in the categorical form, whereas the fallacy of affirming the consequent will become the fallacy of the undistributed middle in the categorical form. Mere change of form does not make a fallacious syllogism a correct one, e. g.

The case of its raining is the case of the college closing.

The present is not a case of its raining

∴ The present is not a case of the college closing.

Here the original fallacy of denying the antecedent has resulted into the fallacy of the illicit process of the major term. Again,

The case of its raining is the case of the college closing.

The present is the case of the college closing
 \therefore The present is the case of its raining.

Here the original fallacy of affirming the consequent has resulted into the fallacy of the undistributed middle.

14. Mixed disjunctive syllogism : A MIXED DISJUNCTIVE SYLLOGISM IS STRICTLY SPEAKING ONE IN WHICH THE MAJOR PREMISE IS A DISJUNCTIVE PROPOSITION AND THE MINOR A CATEGORICAL ONE.

Example :

Taxation is either liked or not-liked by the people

Present taxation is not not-liked by the people

\therefore Present taxation is liked by the people.

15. Forms of disjunctive syllogisms : There are two forms of the disjunctive syllogism. The first in which the minor premise is negative (it denies one of the alternatives) and the conclusion affirmative. This form is sometimes called the MODUS TOLLENDO PONENS, or the mood which affirms by denying, e. g.

(i) Either A is B or C is D

A is not B
 \therefore C is D

(ii) A is either B or C or D

A is not B
 \therefore A is either C or D

(iii) A is either B or C or D

$$\frac{\text{A is neither B nor C}}{\therefore \text{A is D}}$$

16. In the second form of the disjunctive syllogism the minor premise is affirmative (it affirms one of the alternatives) and the conclusion is negative. This form is sometimes called the **MODUS PONENDO TOLLENS** or the mood which denies by affirming, e. g.

(i) Either A is B or C is D

$$\frac{\text{A is B}}{\therefore \text{C is not D}}$$

(ii) A is either B or C or D

$$\frac{\text{A is either B or C}}{\therefore \text{A is not D}}$$

(iii) A is either B or C or D

$$\frac{\text{A is B}}{\therefore \text{A is neither C nor D}}$$

17. **Rules of Disjunctive Syllogism :** The validity of the disjunctive inferences depends upon the nature of the alternatives. We can infer the denial of one alternative from the affirmation of the other only if the alternatives are mutually exclusive materially. Logically we may say that the alternatives given in the major premise must be mutually exclusive and collectively exhaustive. In that case the canon of the disjunctive syllogism would be : **TO DENY ONE MEMBER (OR MORE) OF ANY ALTERNATION IS TO AFFIRM THE OTHER**

MEMBER OR MEMBERS AND TO AFFIRM ONE MEMBER (OR MORE) OF ANY ALTERNATION IS TO DENY THE OTHER MEMBER OR MEMBERS.

18. But if the alternatives in the major premise are not exclusive then the canon will be: TO DENY ONE MEMBER (OR MORE) OF ANY ALTERNATION IS TO AFFIRM THE OTHER MEMBER OR MEMBERS BUT NOT VICE VERSA.

19. If the alternatives are not exhaustive in the major premise then the canon will be: TO AFFIRM ONE MEMBER (OR MORE) OF ANY ALTERNATION IS TO DENY THE OTHER MEMBER OR MEMBERS.

20. Therefore, remember, IF THE ALTERNATIVES IN THE MAJOR PREMISE ARE EXCLUSIVE AND EXHAUSTIVE AFFIRM ONE MEMBER (OR MORE) IN THE MINOR PREMISE AND DENY THE REST IN THE CONCLUSION OR DENY ONE MEMBER (OR MORE) IN THE MINOR PREMISE AND AFFIRM THE REST IN THE CONCLUSION.

21. IF THE ALTERNATIVES IN THE MAJOR PREMISE ARE NOT EXCLUSIVE AFFIRM ONE MEMBER (OR MORE) IN THE CONCLUSION BY DENYING THE REST IN THE MINOR.

22. IF THE ALTERNATIVES IN THE MAJOR PREMISE ARE NOT EXHAUSTIVE DENY ONE MEMBER (OR MORE) IN THE CONCLUSION BY AFFIRMING THE REST IN THE MINOR PREMISE.

23. Illustrative examples :

(1) Ram is either honest or wise

Ram is not honest
 \therefore Ram is wise.

(Here the alternatives in the major premise are not exclusive because Ram can be both honest as well as wise. Therefore, we can only deny one alternative in the minor premise and affirm the other in the conclusion but not **vice versa**.)

(2) Ram is either honest or not-honest.

Ram is honest
 \therefore Ram is-not not-honest

(3) Ram is either honest or not-honest

Ram is-not honest
 \therefore Ram is not-honest

(Here the alternatives in the major premise being exclusive, we can affirm one alternative in the minor premise and deny the other in the conclusion and **vice versa**).

(4) Either a colour is red or white

This colour is red
 \therefore This colour is not white

(Here the argument is valid. Because the alternatives in the major premise are not exhaustive, as there are many colours besides the white and the red, therefore, we can affirm one of the alternatives in the minor premise and deny the other in the conclusion but not **vice versa**).

24. It should be remembered that if the major premise has more than two alternatives, the conclusion will be

disjunctive unless the minor premise denies all the alternatives but one.

Order of questions discussed in this chapter

- Q. 1. What is meant by a mixed Paras. 1 to 7.
hypothetical syllogism? What are
its various forms? Give examples.
- Q. 2. Discuss the rules of a mixed Paras. 8 to 12.
hypothetical syllogism and the
fallacies resulting from their
breach.
- Q. 3. How will you reduce a mixed Para. 13.
hypothetical syllogism to a pure
categorical syllogism?
- Q. 4. What is meant by a mixed Paras. 14 to 16.
disjunctive syllogism? What are
its various forms? Give examples.
- Q. 5. Discuss the rules of a mixed Paras. 17 to 24.
disjunctive syllogism and the
fallacies resulting from their
breach.
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CHAPTER XI

THE DILEMMA

1. **Definition :** Many a time in ordinary life, we are said to be in a dilemma whenever there are but two courses of action open to us, and when both of these we shall gladly avoid. A DILEMMA IS A SYLLOGISM WITH A COMPOUND HYPOTHETICAL MAJOR PREMISE AND A DISJUNCTIVE MINOR.

2. **Characteristics :** The major premise of a dilemma presents either one antecedent and two alternative consequents or two alternative antecedents and one consequent, or an antecedent with its consequent and another antecedent with its consequent.

3. The minor premise either disjunctively affirms the antecedents or denies the consequents.

4. **Forms or kinds of the dilemma :** A dilemma, like all other mixed syllogisms, may be either **constructive**—when the minor premise affirms the antecedents; or **Destructive**—when the minor premise denies the consequents.

5. In the case of constructive dilemma there must be two antecedents in the major premise, for then only the minor premise can be disjunctive. There can be, however, either one consequent or two consequents. If there is one consequent the conclusion will be categorical, if two, it will be disjunctive. If the conclusion is categorical, the dilemma is simple, if it is disjunctive, it is complex.

6. Thus we have four forms of a dilemma : (1) Simple constructive, (2) Simple Destructive, (3) Complex Constructive and (4) Complex Destructive.

Illustrative examples :

(1) Simple Constructive :

(a) If A is B, C is D; and if E is F, C is D,
But either A is B or E is F,
 Therefore C is D.

(b) If a man acts in accordance with his own judgement, he will be criticised, and if he is guided by the opinions and rules of others, he will be criticised.

But he must either act in accordance with his own judgement or be guided by the opinions of others.

Therefore, in any case, he will be criticised.

(2) Simple Destructive :

(a) If A is B, C is D; and if A is B, E is F,
But either C is not D or E is not F,
 Therefore A is not B.

(b) If a thing moves, it must move either in the place where it is or in the place where it is not,

But it cannot move where it is, not can it move where it is not,

Therefore it cannot move.

(3) Complex Constructive :

(a) If A is B, C is D; and if E is F, G is H,
But either A is B, or E is F
 Therefore either C is D or G is H.

(b) If these books contain the same doctrines as the Koran, they are unnecessary; and if they are at variance with the Koran, they are wicked and pernicious,

But they must either contain the same doctrines as Koran or be at variance with it,

Therefore these books are either unnecessary or wicked and pernicious.

(4) **Complex Destructive :**

(a) If A is B, C is D; and if E is F, G is H,

But either C is not D, or G is not H,
 Therefore either A is not B, or E is not F.

(b) If an officer does his duty, he will obey orders and if he is intelligent, he will understand them,

But this officer either disobeyed his orders or else he misunderstood them,

Therefore, he either did not do his duty, or else he is not intelligent

7. **Fallacious Dilemmas:** Dilemmas are mostly employed to entrap an opponent as mere rhetorical artifices. They are generally controversial and polemic in nature. That is why it is said that dilemmas are more often fallacious than not. Thus Mellone wrote of the dilemmatic argument: "It has a reputation of being fallacious."

8. A dilemma may have *Formal Fallacies* or it may be materially invalid. It is formally incorrect if it transgresses the rules of mixed hypothetical syllogisms,

materially fallacious. Besides the major premise being fallacious, the minor premise is also materially fallacious. The alternatives—either education is popular or unpopular—are not exhaustive. There is a possibility that people may be indifferent to education. To point out this unmentioned possibility is ‘to escape between the horns’ of the dilemma.

12. (2) A dilemma may be **taken by the horns**. This is done by showing that the one or both of the consequents do not follow from the antecedents which are given in the major premise. For example, in the argument given above, it may be shown that the consequent—‘compulsion is unnecessary’—does not causally follow from its antecedent—“if education is popular.” For ‘popular’ simply means that a majority of persons like it. What about the rest of them who do not like it? In their case compulsion will not be unnecessary. Similarly, the consequent—“compulsion will not be tolerated”—does not causally follow from its antecedent—“if education is unpopular.” For those persons who like it will certainly approve of compulsion and others can be taught and persuaded to tolerate compulsion.

13 (3) Lastly, a dilemma may be **rebutted**. This is done by proposing a counter-dilemma which leads to an exactly opposite conclusion of the original. This is merely a formal device used by rhetoricians to show the weakness of an opponent’s position. **REBUTTAL OF A DILEMMA CAN BE DONE BY TRANSFERRING THE ORIGINAL CONSEQUENTS AND CHANGING THEIR QUALITY**, e. g.

If a man is single, he is unhappy because he has no one

BE REFUTED BY POINTING OUT THAT IT IS FORMALLY FALLACIOUS, i. e. it either denies the antecedent or affirms the consequent. Thus for the **refutation of a dilemma** one has to either (1) escape between the horns or (2) take the dilemma by the horns or (3) prove that it is formally fallacious. Whereas in the **rebuttal of a dilemma** we have simply to offer a counter-dilemma proving the opposite conclusion.

17. Conditions for the validity of a dilemma : in the end it may be mentioned that in order that a dilemma may be valid it must be free from both formal as well as material fallacies. It means that it should fulfil the following requirements :

1. The minor premise must either affirm the antecedent or deny the consequent.
2. The connection between the antecedents and their consequents in the major premise must be real and essential.
3. The alternatives presented in the minor premise must be collectively exhaustive.

Order of questions discussed in this chapter

- Q. 1. Define a Dilemma. Name and Paras. 1 to 6. illustrate its varieties.
- Q. 2. Explain the chief faults to which dilemmas are liable. (B. U. 1934). Paras. 7 to 9.
- Q. 3. What are the various ways in which a dilemma can be attacked? Paras. 10 to 15.

- Q. 4. What is the difference between Para. 16. the 'Refutal' and 'Rebuttal' of a dilemma? (B. U. 1947)
- Q. 5. What are the conditions of validity Para. 17. in a dilemma? (B. U. 1944)

Related University Questions

- Q. 6. What are the characteristics of Paras. 2 to 6. Dilemma? Distinguish and explain its varieties and illustrate them by symbolic examples, (B. U. 1939)
- Q. 7. What conditions must the premises fulfil in order that the dilemma be conclusive? (B. U. 1946) Para. 17. (1) (2) (3).
- Q. 8. Discuss with examples the difference between rebutting and refuting a dilemma. What is the logical value of mere rebuttal? (B. U. 1942). Paras. 16, 13 to 15.
- Q. 9. What is a Dilemma? Distinguish between a rebuttal and a refutal of a Dilemma? (B. U. 1950.) Paras. 1, 2, 13. to 16.
- Q. 10. Give the structure and varieties of Dilemma. (G. U. 1951.) Paras. 2 to 6.
- Q. 11. What is a Dilemma? What are the frequent sources of fallacies in them? (G. U. 1952). Paras. 1, 2, 7 to 9.
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CHAPTER XII

ENTHYMEMES

1. Definition: Generally, in speech, we do not express a syllogistic argument in the usual form of three constituent propositions—the Major premise, the Minor premise and the conclusion. We speak what is strictly necessary and thus either omit one of the premises or suppress the conclusion. Such an incomplete syllogism with some of its parts suppressed is called an **Enthymeme**. Welton defines it thus: “AN ENTHYMEME IS A SYLLOGISM ABRIDGED IN EXPRESSION BY THE OMISSION OF ONE OF THE CONSTITUENT PROPOSITIONS.”

2. Kinds: Enthymemes are of three orders or kinds according as one of the three propositions is suppressed.

(1) **First Order**—When the major premise is omitted.

(2) **Second Order**—When the minor premise is omitted.

(3) **Third Order**—When the conclusion is omitted.

Illustrative examples :

3. First order: Ram is bound to succeed, because he is both diligent and intelligent.

(Here the major premise, “All persons who are both diligent and intelligent succeed” is omitted).

4. Second order: Ram is bound to succeed, because all those who are both diligent and intelligent succeed.

(Here the minor premise, “Ram is both diligent and intelligent” is omitted).

5. Third order: All those who are both diligent and intolligent succeed and Ram is both diligent and intolligent.

(Here the conclusion, "Therefore Ram is bound to succeed" is omitted).

6. General rules : It would be seen that it is very common to come acrosss Enthymemes in ordinary life. Care should be taken in regard to the validity of the arguments. No general rules of syllogism should be violated. The figure and mood of an Enthymeme can be determined by resolving it into a complete syllogism and applying the same tests as are applied to syllogisms in general.

7. If the conclusion is not omitted in an Enthymemo we can find out the omitted premise by applying the following rule given by Carveth Read :

8. "Take out the term of the given premise which does not occur in the conclusion (and which must, therefore, be middle) and combine it with that term of the conclusion which does not occur in the given premise, the proposition thus formed is the premise which was requisite to complete the syllogism. If the premise thus constituted contain the predicate of the conclusion, the Enthymeme was of the First Order, if it contain the subject of the conclusion, the Enthymeme was of the Second Order."

9. The importance of Enthymemes lies in the fact that they generally provide a natural mode of reasoning. In oratory, debates, law-courts and controversial writings, enthymemes prove a handy mode of expression. A full and formal syllogism is neither necessary nor possible in day to day dealings.

Order of questions discussed in this chapter

- Q. 1. What is an Enthymeme. Discuss Paras. 1 to 5.
their varieties. (B. U. 1947)
- Q. 2. What are the rules for finding Paras. 6 to 8.
out the omitted premise in an
Enthymeme ?
- Q. 3. Is it true to say that the Enthymeme is the natural mode of
reasoning ? (B. U. 1940). Para. 9.

CHAPTER XIII

TRAINS OF SYLLOGISTIC REASONING

1. Prosyllogism and Epysyllogism : In deductive reasoning, the argument is often conducted through several syllogisms in the form of a chain of reasoning using the conclusion of the preceding syllogism as a premise (either major or minor) in the following syllogism. Symbolically, it may be represented as follows :

(I)	(II)
$\begin{array}{l} \text{(a)} \quad \begin{array}{l} Y \text{ a } P \text{ (major)} \\ X \text{ a } P \text{ (minor)} \\ \hline \therefore X \text{ a } P \text{ (concl.)} \end{array} \end{array}$	$\begin{array}{l} \text{(a)} \quad \begin{array}{l} Y \text{ a } X \text{ (major)} \\ S \text{ a } Y \text{ (minor)} \\ \hline \therefore S \text{ a } X \text{ (concl.)} \end{array} \end{array}$
$\begin{array}{l} \text{(b)} \quad \begin{array}{l} X \text{ a } P \text{ (major)} \\ M \text{ a } X \text{ (minor)} \\ \hline \therefore M \text{ a } P \text{ (concl.)} \end{array} \end{array}$	$\begin{array}{l} \text{(b)} \quad \begin{array}{l} X \text{ a } M \text{ (major)} \\ S \text{ a } X \text{ (minor)} \\ \hline \therefore S \text{ a } M \text{ (concl.)} \end{array} \end{array}$
$\begin{array}{l} \text{(c)} \quad \begin{array}{l} M \text{ a } P \text{ (major)} \\ S \text{ a } M \text{ (minor)} \\ \hline \therefore S \text{ a } P \text{ (concl.)} \end{array} \end{array}$	$\begin{array}{l} \text{(c)} \quad \begin{array}{l} M \text{ a } P \text{ (major)} \\ S \text{ a } M \text{ (minor)} \\ \hline \therefore S \text{ a } P \text{ (concl.)} \end{array} \end{array}$

2. In the (I) case the conclusion of the first syllogism forms the major premise of the second syllogism and the conclusion of the second forms the major premise of the third. While in the (II) case the conclusion of the preceding syllogism forms the minor premise of the following syllogism.

3. The preceding syllogism is called the PROSYLLOGISM, and the succeeding syllogism is called the EPISYLLOGISM. Thus (b) is Episylogism in relation to (a) and Prosylogism in relation to (c).

4. **Progressive Reasoning:** It will be seen in the above cases that we proceed in a forward direction, working out the consequences of the premises from which we start. This mode of investigation is called PROGRESSIVE, SYNTHETIC or EPISYLLOGISTIC. In it we argue from the conditions to what is conditioned, from causes to effects.

5. **Regressive Reasoning:** But the method used in the physical sciences usually takes the reverse course. In it we proceed in the opposite way. In place of going forward developing the consequences from the premises, we go back and show the ground upon which our premises rest. In such a course of reasoning thought proceeds from the Episylogism to the Prosylogism. This mode of investigation is, therefore, called REGRESSIVE, PROSYLLOGISTIC or ANALYTIC. In it we go from the conclusion to the premises, from the conditioned to its necessary conditions. Symbolically it may be represented as follows:

$$(a) \left\{ \begin{array}{l} \text{because } SaP \\ \text{and } MaP \\ \text{and } SaM \end{array} \right\} \quad \text{Episylogism} \quad \therefore$$

(b) $\left\{ \begin{array}{l} \text{because } \text{MaP} \\ \text{and } \text{QaP} \\ \text{and } \text{MaQ} \end{array} \right\} \quad \text{Prosyllogism}$

6. In the above train of reasoning, the final conclusion is generally put first; and reasons are next advanced for proving it. These reasons are again proved next by other syllogisms, all of them tending to support the first.

Pollysyllogism: A train of reasoning containing many syllogisms, whether progressive or regressive is often called a POLYSYLLLOGISM.

Sorites or Chains of Reasoning

7. **Definition:** A sorites is an abbreviated form of syllogistic reasoning which is progressive in character and in which all conclusions except the last have been suppressed. In place of drawing the conclusion at each stage, the sorites continues the process of reasoning and only sums up its results at the close. Welton defines it as follows: "A SORITES IS A PROGRESSIVE CHAIN OF REASONING WHOSE EXPRESSION IS SIMPLIFIED BY THE OMISSION OF THE CONCLUSION OF EACH OF PROSYLLOGISMS." Creighton defines it "AS A SERIES OF PROSYLLOGISMS AND EPISYLLLOGISMS IN WHICH ALL OF THE CONCLUSIONS, EXCEPT THE LAST, ARE SUPPRESSED."

From the above it follows that a sorites consists of a number of Enthymemes of which the first is of the third order (as only its conclusion is omitted) and the last either of the first or the second order (as either the major or the minor premise may be omitted).

8. **Kinds of Sorites :** These may be represented as follows :—

(I)	(II)
All A is B	All A is B
All B is C	All C is A
All C is D	All D is C
All D is E	All E is D
∴ All A is E	∴ All E is B
Aristotelian sorites	Goalenian sorites

9. In the above examples it will be seen that in (I) the subject of the first premise is taken up as the subject of the conclusion, and the predicate of the last premise is the predicate of the conclusion. This form is known as the **Aristotelian Sorites**. In (II), however, the subject of the last premise is the subject of the conclusion, while the predicate of the first premise forms the predicate of the conclusion. This form is known as the **Goalenian Sorites**. In the Aristotelian Sorites the suppressed conclusions form the minor premises of the following episyllogisms, whereas, in the Goalenian Sorites they form the major premise of the following episyllogisms. Thus in (I) the conclusion of the first prosyllogism All A is B, All B is C will be All A is C. This will form the minor premise of the following episyllogism in the form—All C is D, All A is C and its conclusion, viz. All A is D, will form the minor premise of the following episyllogism in the form—All D is E, All A is D the resultant conclusion being All A is E.

10. On the other hand in (II) the conclusion of the first prosyllogism, viz. All C is B will form the major premise of the following episyllogism in the form—All C is B, All D is C and its conclusion, viz. All D is B, will form the major premise of the following episyllogism in the

form—All D is B, All E is D necessitating the conclusion
All E is B.

11. The above discussion shows that a Sorites can be resolved into a series of constituent syllogisms. Thus (I) and (II) can be expanded into the following syllogisms.

(a)	(b)	(c)
(I) <u>All B is C</u> All A is B ∴ <u>All A is C</u>	All C is D <u>All A is C</u> ∴ <u>All A is D</u>	<u>All D is E</u> <u>All A is D</u> ∴ <u>All A is E</u>
(a)	(b)	(c)
(II) <u>All A is B</u> All C is A ∴ <u>All C is B</u>	All C is B <u>All D is C</u> ∴ <u>All D is B</u>	<u>All D is B</u> <u>All E is D</u> ∴ <u>All E is B</u>

12. **Rules of Sorites :** In both forms of the Sorites, THERE CANNOT BE MORE THAN ONE NEGATIVE PREMISE, NOR MORE THAN ONE PARTICULAR PREMISE.

13. In the Aristotelian Sorites

(1) *Only one premise, and that the last, can be negative.*

(2) *Only one premise, and that the first, can be particular.*

14. **RULE (1):** If more than one premise were negative, one of the constituent syllogisms will contain two negative premises as a negative premise necessitates a negative conclusion and no term can be distributed in the conclusion which is not distributed in its premise. See para. 11 (I).

from the conditioned to its conditions or from effects to causes.

26. Kinds of Epicheirema: In an Epicheirema the reason of each episyllogism (which is given in full) is advanced by a prosyllogism (which is expressed as an Enthymeme). If only one premise of an Epicheirema is supported by a reason, it is **Single**; if both of its premises are supported by reasons, it is **Double**. Further, if the premises of the episyllogism are supported by reasons given in the form of Enthymemes, the Epicheirema is **Simple**. On the other hand if the reasons supporting an episyllogism are themselves supported by other reasons, it is **Complex**. Thus in all there are four forms of an Epicheirema: (1) Simple single, (2) Simple double, (3) Complex single, and (4) Complex double.

27. Symbolically these forms may be represented thus:

(1) Simple Single :

All A is B, because All C is B and All A is C—Episyllogism

And all C is B, because all D is B—Prosyllogism
(Enthymeme of the II order) Suppressed premise is All C is D.

(2) Simple Double :

Episyllogism	{	All A is B ∴ All C is B, and All A is C.
	{	All C is B ∴ All D is B — Prosyllogism
		(Enthymeme of the II order) Suppressed premise is All C is D.

All A is C \therefore All A is F — Prosyllogism
(Enthymeme of the 1 order) Suppressed premise
is All F is C.

(3) Complex Single :

Every M is P, because it is X, and Every X is Y;
Every S is M; therefore Every S is P.

(Here the Episyllogism is Every M is P, Every S is M; therefore Every S is P; The Epicheirema is single because only one premise is supported by reason—Every M is P because it is X; it is complex because the reason of Every M is P, viz. X, is itself again supported by another reason, viz. Every X is Y).

(4) Complex Double: Every M is P, because it is X, and Every X is Y;

Every S is M, because it is N, and Every N is O;
therefore Every S is P.

(Here the Episyllogism is Every M is P, Every S is M, therefore Every S is P; the epicheirema is double because both its premises are supported by reasons. It is complex because the reasons of the premises themselves are supported by further reasons).

28. A concrete example of an Epicheirema will help in analysing and criticising it :

Whatever tends to withdraw the mind from pursuits of a low nature deserves to be promoted; classical learning does this since it gives us a taste for intellectual enjoyments; therefore it deserves to be promoted."—Jevons.

The Episyllogism in the above example is:

CHAPTER XIV

FUNCTIONS AND VALIDITY OF THE SYLLOGISM

1. **Introductory:** Many logicians have cast doubts upon the usefulness and validity of syllogistic inference. We will be chiefly concerned, in this chapter, about the objections of Mill against the syllogistic inference. But before we do so it is worthwhile to consider some of the general points raised by the disputants of syllogism. There are four questions that should be separately dealt with :

1. Is syllogism the actual mode of our reasoning ?
2. Is it the only mode of reasoning ?
3. Does the syllogism give us some new knowledge ?
4. Is the major premise of a syllogism independent of its conclusion ?

2. (1) The first question can be answered in the affirmative. No doubt in actual practice we do not express all the members of the syllogistic argument, the usual form of our reasoning when expressed in language being that of Enthymemes. But if doubt is expressed about the correctness or validity of the conclusion averred by us, we can and do expand our abbreviated argument in the form of a full syllogism.

3. (2) Reasoning, i. e. deductive inference is not in all cases syllogistic, and, therefore, the second question should be answered in the negative.

4. (3) All inference leads to some advance of knowledge. It should give us knowledge which we did not possess before, or else it is no inference at all. The third question, therefore, inquires whether syllogistic inference is genuine inference at all. The fact that the conclusion of a syllogism follows from or is implied by the two premises does not in any way prove that the knowledge of the premises included the knowledge of the conclusion. One may have known the premises without knowing that a particular conclusion follows from them. In that case the deriving of a conclusion would be a real advance of knowledge. The question here, however, is more fundamental. It is, whether the knowledge of the truth of the conclusion follows the knowledge of the truth of the major premise or it is known before the latter is known. This brings us to consider the fourth question stated above.

5. (4) To ask if the major premise is independent of the conclusion is equivalent to asking whether the major premise can be known without the conclusion being known. The question is not whether the major premise implies the conclusion as some logicians have confused it to mean. All that is asked is whether the conclusion forms part of the evidence upon which the major premise is based. If it does, the reasoning will be circular—trying to explain *b* by *a* and again *a* by *b*. Now, this would be the case if the major premise were enumerative, i. e. if it has been formulated after enumerating all possible particular instances including the minor term. Thus if there are forty books on a table and after examining all of them it is found that they are all philosophical; later if any one of them is taken up and it is declared to be philosophical, this is

evidently arguing in a circle for our knowledge of the major premise – “All books on this table are philosophical” included the knowledge about the particular book asserted to be philosophical in the conclusion. But is all syllogistic reasoning of this nature? The answer is ‘No’. All major premises are not known by enumeration of all the particular instances. In valid induction we do not generalize by enumerating all possible cases of an occurrence. To the extent and in so far as the major premise is known without knowing the conclusion the syllogistic reasoning does not involve arguing in a circle and at the same time it tends to give new knowledge.

6. Mill's objections : Now we are in a position to state and examine Mill's objections to syllogistic reasoning. His contention is two-fold. In the first instance he doubts the value of syllogism as a mode of inference, and, secondly, he questions its validity. He puts it thus : “If all the facts of the major premise of any syllogism have been examined, the syllogism is needless ; and if some of them have not been examined, it is a *petitio principii*. But either all have been examined, or some have not. Therefore the syllogism is either useless or fallacious.” We shall consider these two aspects separately.

7. Nature of Inference : Mill believed that the syllogistic form of reasoning does not represent the ordinary form in which we reason in our ' day to day life. His contention was that all inference is from particulars to particulars and not from the general to the particular. While inferring we begin by observing particular cases. From these we infer to other unobserved cases. Afterwards we can sum up all the observed and unobserved cases

by making a general statement, but the inference is over before the general statement is made and the latter cannot be held as a ground for inferring any particular case. At best the general statement has this utility that it serves as a check on hasty inference, but thereby it does not become the ground for inference.

8. One may even not pass through the general statement. "Not only may we reason from particular to particular without passing through generals, but we perpetually do so reason. All our earliest inferences are of this nature. From the first dawn of the intelligence we draw inferences, but years elapse before we learn the use of general language. The child who, having burnt his fingers, avoids to thrust them again into the fire, has reasoned or inferred, though he has never thought of the general maxim, Fire burns. He knows from memory that he has been burnt, and on this evidence believes, when he sees a candle, that if he puts his finger into the flame he will be burnt again. He believes this in every case which happens to arise; but without looking in each instance beyond the present case. He is not generalising; he is inferring a particular from particulars."—Mill

9. The error in Mill's thinking can be easily detected. No one denies that usually we reason without formulating a general proposition or that we are unaware of any universal principle being involved in our reasoning. But this does not mean that no universal principle is involved in our reasoning. The real ground of inference is not the particulars observed, but the similarity between them and the new case or cases; and inference is valid or invalid

according as the similarity is fundamental and essential or superficial and accidental. Thus when the child refrained from putting his finger in the flame he had consciously or unconsciously connected the flame or fire with burning and his act of refraining was not dependent upon his past particular experience at such but was based upon his awareness, if this word can be correctly used, of the necessary connection between fire and burning. But even if it be allowed that the child made use of his memory and inferred from one particular to another this merely establishes that there are some forms of inferences based upon mere analogy or superficial similarity between one particular and another, but this does in no way represent the universal way of reasoning.

10. Again, Mill remarked, "All inference is from particulars to particulars : General propositions are merely registers of such inferences already made, and short formulae for making more. The major premise of a syllogism, consequently, is a formula of this description ; and the conclusion is not an inference drawn **from** the formula, but an **inference** drawn **according** to the formula ; the real logical antecedent or premises being the particular facts from which the general proposition is collected by induction." The position held by Mill here is untenable. He himself recognised that we cannot validly argue from any particular case to any other. According to him also we argue from, 'parallel' or 'similar' cases. But we can never argue validly on the basis of mere similarity or resemblance. Arguments based upon superficial resemblance or analogy are never valid unless the points of resemblance are fundamental and essential, and this is exactly the meaning of a universal principle being employed in reasoning. It is not from one particular to another that we infer ;

it is from the necessary connection or the essential and fundamental similarity, which is expressed in the major premise in the form of a universal proposition, that we infer.

11. Mill's mistake lay in his confounding a problem of Psychology with that of Logic. The question is not how we do reason, or whether we infer one particular case from another without formulating a universal proposition—it is a matter to be discussed by Psychology; the question of logical importance is how **ought** we to reason so that our inference may be valid? On what does a valid inference depend? What premises must be true to justify it? Mill's objection that the syllogism does not represent the common form of reasoning is based on a confusion regarding the nature of Logic as a positive science. Logic is not a positive, but a normative science. Its business is to discover the principles underlying sound reasoning and the premises which particular reasonings imply. It never holds that all those who reason correctly are consciously aware of these principles or that they explicitly formulate these premises. All that it holds is that for every reasoning to be sound, the universal must be present and the implied premises must be true.

12. **Syllogism and Petitio Principii**: Now let us consider the second objection of Mill that as a form of reasoning, the syllogism involves the fallacy of *petitio principii* or begging the question. The charge that the syllogism involves the fallacy of *petitio principii* was first advanced by Sextus Empiricus in the second century A. D. It has been repeated in modern times by a number of logicians chief among them being Mill.

13. In the words of Mill, "It must be granted that in every syllogism considered as an argument to prove the conclusion, there is a *petitio principii*. When we say,

All men are mortal,

Socrates is a man,

Therefore Socrates is mortal;

it is unanswerably urged by the adversaries of the syllogistic theory, that the proposition, Socrates is mortal, is presupposed in the more general assumption, All men are mortal; that we cannot be assured of the mortality of all men, unless we are already sure of the mortality of every individual man; that if it be still doubtful whether Socrates, or any other individual we choose to name, be mortal or not, the same degree of uncertainty must hang over the assertion, All men are mortal; that the general principle, instead of being given as evidence of the particular case, cannot itself be taken for true without exception, until every shadow of doubt which could affect any case comprised with it, is dispelled by evidence *abundant*; and then what remains for the syllogism to prove? That, in short, no reasoning from generals to particulars can, as such, prove anything, since from a general principle we cannot infer any particulars, but those which the principle itself assumes as known."

14. Mill here has in view the traditional conception of formal logic according to which every syllogism can be reduced to Fig. I, where the major premise states a universal or general proposition and the minor subsumes a particular case under it. In this form the major premise states universally what is to be proved in a particular case in

the conclusion. The conclusion is in such a case assumed in the major premise and the major premise cannot be true unless the conclusion is true. Hence, if the conclusion is doubtful before it is proved, the major premise which is used to prove the conclusion is also doubtful, and the conclusion will be as doubtful after it has been proved syllogistically as it was before.

15. The above contention is based on a particular theory of the nature of a universal proposition. How do we form a generalisation? How do we arrive at a universal proposition? What is the exact nature of an inductive inference? Upon the answer to these questions depends the truth or falsity of Mill's contention that the syllogism involves a *petitio principii*.

16. Mill in making the above charge, assumes that all universals are mere aggregates of particulars. We are not entitled to make a universal statement except on the basis of particular observations and in so far as any particular or particulars have remained unobserved, the statement of the universal is doubtful. This means that the only kind of universal which is possible is the enumerative, i. e. one which is arrived at by observing and enumerating all individual cases under it. For example, by individually examining all the chairs lying in a room we may assert, "All the chairs in this room are green in colour."

17. If we grant this assumption of Mill, that the major premise of every syllogism is enumerative or an aggregate of particulars his conclusion that every syllogism involves a *petitio principii* follows automatically. For, if in forming the generalisation 'All men are mortal', we

have taken into account that John is mortal, James is mortal, Socrates is mortal.....and so on, and later on we establish the conclusion, 'Socrates is mortal', it is nothing but arguing in a circle—establishing the general proposition, 'All men are mortal' by 'Socrates is mortal' and again proving that 'Socrates is mortal' by the general proposition, "All men are mortal."

18. To disprove the charge of *petitio principii* against syllogistic reasoning, we have to challenge the premises on which Mill builds his thesis. Do we get the major premise which is a universal proposition always in the way Mill has pointed out, viz. by mere enumeration or aggregation of the particulars? This is to attack the problem at its root. It has already been observed that the major premise is essentially not a mere summation of observed instances. According to Mill, the "universal type of the reasoning process" is "resolvable in all cases into the following elements: Certain individuals have a given attribute; an individual or individuals resemble the former in certain other attributes; therefore they resemble them also in the given attribute." Here Mill is referring to induction by analogy. But in the first instance, it cannot be said that it is the "universal type of the reasoning process." Secondly, even when we generalise on analogical grounds, it is not from one particular case to another that we do so, it is from the common factor between the particulars that we draw the conclusion. An argument by analogy, when it is valid, rests not on concrete particular case or cases but on the common factor or factors that serve as a bond of connection between the premises and the conclusion and it is precisely this common bond which is meant by a universal. Thus in all analogical arguments.

there is an implicit universal which is the real ground of inference and not the particular instances.

19. Now this universal may or may not be consciously formulated or even recognised while making a generalised statement. But this does in no way detract the fact that it is the implicit universal that makes all inductive inference valid.

20 So far as Mill's contention that the major premise is an enumerative universal is concerned it is not hard to disprove him. Once we grant that in syllogism it is our grasp of the necessary connection between qualities or elements that entitles us to formulate the universals, it becomes evident that enumeration of all individual instances is not at all necessary to make the universal statement. And even if it were necessary, in most cases it would be impossible to do so. How could we on the basis of enumeration arrive at a universal statement like 'All men are mortal', unless all men had died. Mere enumeration is not only an unnecessary but an impossible mode of establishing general truths.

21. It has been observed before that Mill's chapter on "The Functions and Value of the Syllogism" lacks precision and is extremely unclear even to the point of inconsistency. Attempts at interpreting Mill's view have, therefore, led different logicians to varying conclusions. Dr. W. E. Johnson exempts Mill from agreement with those who make the charge of *petitio principii* against syllogism. On a close consideration of his views we can understand Mill's position better.

22. We shall begin by quoting the views on this subject by Mill himself. He says: "Now, all which man

can observe are individual cases. From these all general truths must be drawn, and into these they may be again resolved; for a general truth is but an aggregate of particular truths; a comprehensive expression, by which an indefinite number of individual facts are affirmed or denied at once. But a general proposition is not merely a compendious form for recording and preserving in the memory a number of particular facts, all of which have been observed. Generalisation is not a process of mere naming, it is also a process of inference." Here Mill clearly recognises the fact that for establishing a universal major it is not necessary to observe all particular instances. He went further and took the general proposition, "All men are mortal", and applied it to the first Duke of Wellington who was then living and inferred that the Duke is mortal. Here it is evident that the mortality of the Duke did not form part of the evidence upon which the major was based. Therefore, the syllogism did not involve a *petitio principii*.

23 On the strength of the above views Mr. Johnson has tried to free Mill of the charge of considering syllogistic reasoning as an instance of arguing in a circle. Mr. Johnson has ably distinguished between two sets of conditions upon which the validity of all reasoning depends. They are: (a) those conditions which refer to the propositions and the relations holding between them and which are therefore independent of the thinker, (b) those conditions which refer to the relation of the propositions to what the thinker may happen to know and which will therefore vary from time to time as the knowledge of the thinker increases. They have been termed the *constitutive conditions* and *epistemic conditions*

respectively by Mr. Johnson. Thus the possibility of inference depends upon (1) what the thinker knows and what is true and (2) upon the logical relations between the propositions. This fact has been frequently overlooked that a valid inference must satisfy both the constitutive as well as the epistemic conditions. Constitutively the conclusion must be implied by the premises so that if the conclusion is not true the major premise also cannot be true. Epistemically the major premise must be independent of the conclusion, i. e. the major premise should be known without the conclusion being known or in other words the conclusion should not constitute part of the evidence upon which the major is based.

24. It is clear that the charge of *petitio principii* against syllogism refers to the epistemic validity of the major premise and Mill seems to have recognised it. But here the matter does not end. Mill went further and contended that it was not logically necessary to introduce the major premise in order to draw the conclusion. This part of Mill's argument has been totally neglected by Mr. Johnson. Mill can be credited with the recognition of the possibility of syllogism being epistemically valid but his argument that the major premise is a mere memory-saving device and as such is not logically necessary for drawing the conclusion is unsupportable and wrong. Mill maintained that "the reasoning lies in the act of generalization not in interpreting the record of that act; but the syllogistic form is an indispensable collateral security for the correctness of the generalization itself." Here he recognizes the utility of the major premise as a test of correctness of the syllogistic reasoning but denies its function as a logically necessary member of the syllogism. We, therefore, cannot
Logic—13

agree with Mr. Johnson in his estimate of Mill's position wherein he says: "Now the charge of circularity or *petitio principii* is epistemic, and the whole of Mill's argument may therefore be summed up in the statement that the epistemic validity of syllogism and the constitutive validity of induction, both of which had been disputed by earlier logicians, stand or fall together.' Here Mr. Johnson ignores the argument of Mill that the major premise is not logically necessary. This in effect means that Mill admits the validity of the syllogism only by depriving the inference of its syllogistic character, by making it non-syllogistic—from particulars to particulars.

25. Paradox of Inference : from the above discussion it is possible to resolve what is known as 'the paradox of inference', viz. the syllogism should satisfy two apparently incompatible conditions: (a) the conclusion must contain something new; it must give us knowledge which we did not possess before; and (b) the conclusion must not contain anything new that is not contained in the premises. We have already seen that the major premise can be epistemically independent of the conclusion and that it is possible to know the premises without necessarily knowing the conclusion. The second condition has its basis in a confusion about the use of the word 'contained.' The use of this word is unfortunate because the premises do not **contain** the conclusion; they **imply** it. Viewed as a form of implication, syllogism satisfies the seemingly incompatible characteristics of **novelty** and **necessity**.

26. Summary : We can sum up our discussion as follows; (1) Mill's contention that all reasoning is from particulars to particulars is untenable. At the same time

logicians like Whately, Bowen and Mansel who hold that syllogism is the only type of valid mediate inference are equally wrong. To say that no reasoning is syllogistic is as wrong as to say that all reasoning is syllogistic. (2) For a syllogistic inference to be valid it is necessary that it should satisfy both the epistemic as well as constitutive conditions. (3) The major premise of a syllogism can be epistemically independent of the conclusion. (4) The charge of *petitio principii* refers only to the epistemic validity of the major premise; since the syllogism can be valid epistemically it cannot be said to involve *petitio principii* simply in virtue of its form. (5) When arguments from particular to particular are valid, they are so because the particulars are instances of a universal. The major premise cannot be said to be merely an aggregate of particulars useful only as a memory-saving device; it is based upon a causal connection of elements and is logically necessary for deducing the conclusion.

27. Importance of Syllogism: Syllogism is only a part of an entire inferential process through which knowledge advances. Inference requires both analysis as well as synthesis and in thought there is no barrier between the deductive and the inductive processes of reasoning. In fact both merge in one another. Syllogism being an entirely formal process, it concerns itself mainly with the logical necessity with which the conclusion follows from the given premises. It none the less bewares us of the desirability of being very careful in our observation of particular facts for if the universal proposition whose truth we have assumed is false objectively, the whole reasoning will lead to erroneous conclusion. We have seen that even Mill recognised the importance and

usefulness of the syllogistic form of reasoning when he remarked that "...the syllogistic form is an indispensable collateral security for the correctness of the generalization itself." Syllogism is a valuable device for the attainment and perfection of the system of knowledge towards which end all inference tends.

Order of questions discussed in this chapter

- Q. 1. What are the common Paras. 1 to 5.
doubts regarding the function
and usefulness of a syllogism ?
- Q. 2. Expound and consider Mill's views Paras. 6 to 11.
on the nature and function of
inference.
- Q. 3. Explain and examine the view Paras. 12 to 24.
that every Syllogism involves the
fallacy of *petitio principii*.
- Q. 4. What is meant by 'Paradox of Paras. 25, 23, 24.
inference' ? In what sense, if any,
must there be (a) novelty, and
(b) necessity in the conclusion of
valid inference ?
- Q. 5. Give a brief summary of the views Para. 26.
discussed in this chapter.
- Q. 6. What is the importance of Para. 27.
Syllogism.

Related University Question

- Q. 7. Does it (Syllogism) involve a Paras. 12 to 24.
'*petitio principii*' ? (G. U.
1951)
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CHAPTER XV

THE CATEGORIES AND THE PREDICABLES

1. The Categories : The doctrine of Categories as that of Predicables is due to Aristotle. According to him CATEGORIES ARE A CLASSIFICATION OF BEINGS, INDEPENDENT OF THEIR RELATIONSHIP WITH OTHER THINGS. His list of categories contains properties, one or other of which in his opinion, belonged to every real thing. The full list consists of ten such properties :

(1) *Substance* : It indicates the essential nature of a thing. Aristotle recognised two kinds of substances, primary and secondary. Primary substance is an individual, such as, Ram. This, according to Aristotle, is the true sense of substance. A secondary substance is either a genus or species. It is any class in which the primary substance is included, such as, man, animal, etc.

(2) *Quantity* : By it Aristotle meant the measurable amount of a thing, such as, 10 seers, 5 feet, etc.

(3) *Quality* : Terms like red, learned, sweet etc. indicate the way of being of a thing and come under the category of Quality.

(4) *Relation* : It stands for the relation or manner of one thing to another, e. g. smaller, father, effect, etc.

(5) *Activity* : It means the way a thing behaves, e. g. writing, running, driving.

(6) *Passivity* : This is the opposite of activity ; it shows how a thing is acted upon, e. g. is loved, is worshipped, being beaten, etc.

(7) *Place*: It tells where a thing is, e.g. in the room, on the roof, here, etc.

(8) *Time*: It tells when a thing is, e.g. tomorrow, noon, midnight, etc.

(9) *Situation*: It tells how a thing is placed in-relation to another e. g. horizontal, sitting, upside, etc.

(10) *State*: It tells in what condition a thing is, e. g. sick, feverish, poor, etc.

2. Criticism: It is needless to concentrate on the above list of categories for its defects are obvious. Any ultimate classification of every real thing is difficult and open to criticism. Aristotle's classification is neither exhaustive nor based upon any distinct basis of division.

3. The Predicables: We have seen above in para. 1 that Aristotle classified things or beings independent of the relation that they may have to other things. In his theory of the Predicables he gave A CLASSIFICATION OF THE WAYS IN WHICH THE PREDICATE OF A LOGICAL PROPOSITION MAY BE RELATED TO ITS SUBJECT WHEN THE SUBJECT IS A GENERAL TERM OR CLASS-NAME.

4. Every general term has two kinds of meanings, connotation and denotation. Now it is possible to compare the subject and predicate of a logical proposition with each other as to their connotation and denotation. The results of such comparisons will give us all the different ways in which one term can be predicated (either affirmed or denied) of the other. THE DIFFERENT RELATIONS BETWEEN THE SUBJECT AND PREDICATE OF A

LOGICAL PROPOSITION ARE CALLED PREDICABLES.

A distinction should be made between a predicate and a predicable. A predicate is a term which is actually affirmed or denied of a subject, a predicable is the name of a class of relation in which the predicate of a logical proposition may stand to its subject.

5. Aristotle's list: According to Aristotle, in every judgement, the predicate must be either the DEFINITION, the GENUS, a PROPERTY or an ACCIDENT of the subject. He further sub-divided definition into DIFFERENTIA. Thus Aristotle recognised four predicables. According to him they could be described in the following way:

(1) *Definition*: Agreeing in connotation as well as in denotation with the subject.

(2) *Property* (Proprium): Agreeing in denotation with but differing in connotation from the subject.

(3) *Genus*: Differing in denotation from, and partially agreeing in connotation with the subject.

(4) *Accident* (Accidens): Differing in denotation with, and also wholly differing in connotation from the subject.

6. Let us consider these predicables separately:

"The *Definition* of anything is the statement of its essence: what makes it that, and not something else."

—Joseph.

7. Thus in "a triangle is a three-sided rectilinear figure", the predicate states what it is that makes a triangle; "a three-sided rectilinear figure" is commensurate with "a triangle" i. e. it agrees with the latter both in denotation as well as connotation.

8. "*A proprium* is an attribute which does not form part of the definition of a class, but which follows from or is a consequence of the attributes named in the definition." —Welton.

9. "*A property* is an attribute common and peculiar to a subject (and therefore obviously commensurate with it), but not part of its essence, and so not included in the definition of it." —Joseph.

10. Thus in "a triangle has its interior angles equal to two right angles", the predicate is not included in the definition of a triangle, but it follows causally from the attributes named in the definition of a triangle. It thus agrees in denotation with, but differs in connotation from the subject.

11. Sometimes property is sub-divided into *generic* and *specific*. The former follows from the connotation of the genus of the subject of the proposition, whereas, the latter follows from the connotation of the species. Thus 'mortality' is a generic property in relation to man because it follows from his animality, while the quality of cooking is a specific property because it follows from man's rationality."

12. The *genus* is that part of the essence of anything which is predicable also of other things differing from it in kind." —Joseph.

13. "*A genus* is a wider class made up of narrower classes called *species*." —Welton.

14. Thus in "a triangle is a rectilinear figure," the predicate is a part of the definition of 'a triangle'; it is predicable of other things differing from a triangle in kind, such as, square, parallelogram etc.; it is a wider class made

up of narrower classes. It differs in denotation from, and partially agrees in connotation with the subject.

15. "An *accidens* is an attribute which not only does not form part of the definition of a class, but which is not necessarily connected with any attribute included in the definition." —Welton.

16. "An *accident* is defined as a non-commensurate predicate not included in the essence: or as an attribute which equally may and may not belong to a subject." —Joseph.

17. Thus it is an accident for a man to be honest, and an accident to be a rogue. The ground for being honest or a rogue does not lie in the nature of man as such.

18. **Porphyry's list:** Nearly 600 years after Aristotle Porphyry modified the list of predicables. He substituted *species* for definition and divided *accidens* into *separable accidens* and *inseparable accidens*. His list consisted of the following predicables: (1) Genus, (2) Species, (3) Differentia, (4) Separable *accidens* and (5) Inseparable *accidens*. This has come down to us as the traditional list of predicables.

19. A *genus* is a wider class consisting of narrower classes called *species*. Thus in the proposition "man is an animal," 'animal' is the genus of which 'man' is a species. There are many species in the same genus. For example, donkey, cat, cow, are all species of the common genus 'man.' The relation of species to genus is that of subordination, while, the relation of the different species of the same genus to each other is that of coordination.

20. A *differentia* is an attribute or a group of attributes distinguishing one species from another falling under the same genus.

21. All attributes other than *differentia* and property are accidents. An *inseparable accident* is one that belongs to an individual throughout its existence or which belongs to all the members of a class, while a *separable accident* is one that belongs to an individual for some time only or which belongs to only some members of a class. Thus the date of birth of a person is his or her inseparable accident; while his wearing a particular kind of dress at a time is a separable accident.

22. **Definition, Property and Accident:** It will be seen that of the various kinds of attributes that can be predicated of a subject all can be classified under one or the other of the three classes—definition or essence, proprium or property and accidents or accident. Essence means “the very being of anything, whereby the thing is what it is.” It includes only those attributes of a thing which make it what it is and but for which it would be different from what it is. In a sense essence of a thing includes only connotation of that term. *Differentia* is included in the essence of a term.

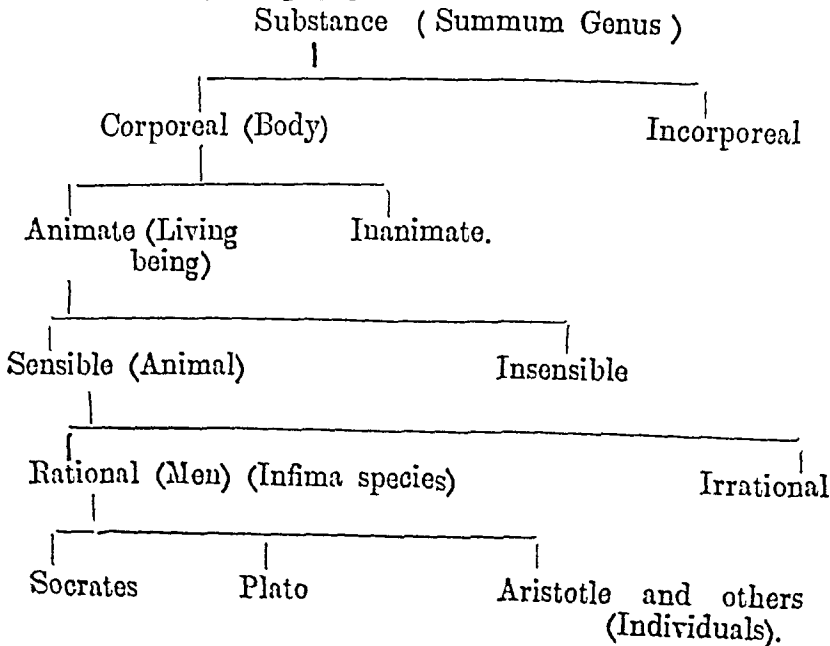
23. Proprium includes such attribute as though no part of the essence of a thing, yet necessarily follows from it as a consequence or as an effect from a cause. A proprium is coextensive in denotation with subject but is not included in its connotation.

24. An accident neither forms part of the connotation of an individual nor does it follow from it as a necessary consequence as a property does. It differs in denotation from the subject and wholly differs from it in connotation.

25. It has been shown above that a genus has no meaning apart from the species of which it is made up.

26. **Proximate and Summum genus ; Infima species :** The nearest genus in relation to a species is called *Proximum* or *Proximate genus*. A term may be genus in relation to a narrower term but may be a species in relation to a wider term. If a term is so general that it cannot be a species of any other wider term, it is called a *Highest genus* or *Summum genus*. If a term cannot be further divided into species, and if split up, it breaks up into individuals of which it is composed, it is called a *Lowest species* or *Infima species*. It cannot become a genus as there is no other class narrower than it.

27. **The Tree of Porphyry:** The relation between genus and species is generally illustrated by what is known as *The Tree of Porphyry* or the Ramean Tree.



28 The Tree explained: Porphyry prepared the above table on the principles of Contradiction and Excluded Middle. It is an instance of division by dichotomy. The term 'substance' is summum genus because it represents the highest class. 'Man' is infima species because it cannot be divided into a lower class. To split it is to name the individuals composing the class named by it. 'Animal' is the proximate genus of man. 'Living being' and 'body' are remote genera of man. Each subaltern is a genus in relation to those below it and a species in relation to those above it. The attributes corporeal, animate, sensible, rational, are differentia which divide each genus into species.

29. Every step downwards in the table leads to an increase of connotation and decrease of denotation. All terms between the summum genus and the infima species are called *subalterns*. As we go down each term becomes subordinate to those above it. This subordination is sometimes called the *predicamental line*.

30. Importance of Aristotle's list: Aristotle's list of the predicables had the merit of being free from overlapping classes. It made the important distinction between the essential attributes of a thing usually included in its definition and the accidental attributes called *propria* or properties. It also distinguished between the generic attributes, i. e. attributes common to a subject and its genus and differentiating attributes, i. e. attributes belonging to a subject in its own right marking it off from the genus.

31. At the present time Aristotle's list has lost some of its importance. Recent strides in the science of evolution have falsified the belief in the finality of the distinction between one genus and another, and between one species and another.

32. Similarly, the distinction made by Aristotle between the essential attributes of a thing and its accidental attributes is hard to apply in many cases.

33. **Comparison between the two lists:** The difference between the list of predicables given by Aristotle and that given by Porphyry is based on a misconception on the part of Porphyry regarding the basis of Aristotle's list. We have seen that in modifying Aristotle's list, Porphyry substituted species for definition and made a distinction between separable and inseparable accidents. Now the intention of Aristotle in giving his list was to classify the ways in which the predicate of a logical proposition may be related to its subject when the subject is a general term or class-name. By doing so he wanted to arrive at an exact definition of the subject. Porphyry lost sight of this important point of view. He thought of a logical proposition having the name of an individual as its subject. Since an individual cannot be defined, he dropped definition from his list of the predicables. Instead, he introduced species because it can be predicated of an individual. Thus he substituted the principle of division for that of definition as given by Aristotle.

34. Another difference between Aristotle's and Porphyry's lists is that the latter introduced the distinction between separable and inseparable accidents. Now this distinction is more plausible than real. If this distinction refers to the relation between an attribute and an individual, no attribute can be properly called an accident. Mahatma Gandhi would not have been what he was had he not worn a loin-cloth or had he not been born in India. On the other hand if this distinction refers to the relations between attributes of one subject, an inseparable accident remains no different from property.

For an attribute that is inseparably related to a subject cannot be called an accident at all. Thus to talk of an inseparable accident of a general term or a class-name is a contradiction in terms. An inseparable accident is identical with property.

35. Merit of Porphyry's list : The list of Porphyry, although based upon a misconception of the point of view of Aristotle, has one merit which the latter does not have. It explains the nature of genus more clearly and correctly than does Aristotle's list. Thus genus has no meaning apart from the species that it is made up of and a species has no meaning apart from the genus to which it belongs. Genus and species are co-relatives. It also, however, is not exhaustive. The modern list of Predicables seeks to be exhaustive and consists of the following : (1) Genus, (2) Designation, (3) Species to Genus, and Species to Individual (4) Synonym, (5) Differentia, (6) Property, (7) Separable Accident, (8) Inseparable Accident, (9) Definition, and (10) Description.

36. Verbal and Real propositions : At this stage it will not be out of place to discuss the distinction between a verbal and a real proposition.

37. A verbal, analytic or essential proposition is one in which the predicate is either a definition or a genus or a differentia. Dr. Keynes defines it thus :

"A verbal proposition is one which gives information only in regard to the meaning or application of the term which constitutes its subject."

38. A real, synthetic, accidental or ampliative proposition is one in which the predicate is either a

property or an accident. It asserts some attribute which is not essential to the meaning of the subject.

Order of questions discussed in this chapter

- Q. 1. What is meant by Categories? Paras. 1, 2.
Enumerate and explain the Categories included by Aristotle in his list.
- Q. 2. Define Predicables. How do Predicables differ from Categories? Paras. 3, 4.
- Q. 3. State and explain Aristotle's list of Predicables. Paras. 5 to 17.
- Q. 4. State and explain Porphyry's list of Predicables. Paras. 18 to 21.
- Q. 5. Distinguish between Definition, Differentia, Proprium and Accidents. Paras. 22 to 24.
- Q. 6. What do you understand by the following terms: Paras. 25, 26.
(a) Proximate Genus (b) Summum Genus, (c) Infima species.
- Q. 7. Explain the significance of *The Tree of Porphyry*. Paras. 27 to 29.
- Q. 8. Discuss the importance of Aristotle's list of Predicables. Paras. 30 to 32.
- Q. 9. Compare and contrast Aristotle's and Porphyry's classification of Predicables, explaining the different points of view from which they arrived at their classifica-

of the whole essential nature of the thing defined, or, in modern language, it is the explicit statement of the connotation of a term."

3. Definition and Description : It is important to remember that in defining a term we mention only the essential attributes or connotation of that term and not every attribute. This brings us to the consideration of the distinction between Definition and Description. Unlike Definition, Description may include any attribute essential or otherwise to the nature of a term. Further, Description, more often than not, appeals to imagination and memory while definition appeals to thought. We can describe anything real or imaginary, but we cannot define everything for in many cases the distinction between essential and non-essential or accidental attributes is hard to determine. Thus Description, unlike Definition, admits of no limitation. Descriptions may be purely imaginary as in poetry, but Definition must refer to something real. Description is of a varying character but scientific Definition is fixed.

4. Ostensive Definition : Definition in logic is strictly limited to the unfolding of the connotation of a term. It can not be taken to stand for any process that enables us to learn the mere application of terms. Thus what Mr. Johnson terms as 'Ostensive definition' is no definition at all. By it he means a form of definition which consists in 'the act of indicating, presenting, or introducing the object to which the name is to apply.' Mr. Johnson evidently confused between what a name merely demonstrates and what it connotes.

5. Biverbal Definition : Similarly, what Mr. Johnson calls 'biverbal definition' is not definition proper. For example, "valour means courage" is not a definition. Mr. Johnson's view that definition is nothing but substitution of verbal phrases is entirely wrong.

6. Nominal and Real Definitions : Another controversial point regarding definition has been the question as to whether it is of names or of things, i. e. whether we define 'the verbal expression, or what the verbal expression stands for'? Mill contended that what we define is merely the names without referring to the objects that these names denote. In his own words, "All definitions are of names, and of names only." Thus, he argues, we may define a dragon as a fire-breathing monster, though nothing like a dragon exists in the real world. Such definitions which are merely of names or of verbal expressions are called 'nominal'. If a definition defines not merely a name but also the objects denoted by the name, it is 'real'. This distinction, however, seems to be ill-founded. For what we define is neither the name as such nor what the name stands for. It is the 'use' or 'reference' of the word, as Welton puts it, that is defined. Mill seems to have recognised this when he wrote: "the simplest and most correct notion of a definition is, a proposition declaratory of the meaning of a word, namely, either the meaning which it bears in common acceptation, or that which the speaker or writer, for the particular purposes of his discourse, intends to annex to it." This recognises the close connection between words and what they express. Nevertheless, to say that what we define is the object for which name stands, is a mistake. As Stebbing puts it, 'we define the word, but

there is a word to define only because we want to talk about what it expresses." This means that rightly speaking it is the "reference" of the word that is defined.

7. Substantial and Genetic Definitions : A distinction is sometimes made between a 'substantial' definition and a 'genetic' definition. A term is said to be defined 'substantially' when only the essential attributes belonging to that term are stated; it is defined 'genetically' when those attributes are stated which best exhibit its origin. To quote Welton, "Definition which sets forth the process by which a thing comes to be what it is, and which is, therefore, based on the idea of causation, is called *genetic*."

8. Definition always consists of two parts: the expression defined and the defining expression or in other words the thing defined and the words defining the thing. The former is called the *definiendum*, the latter the *definiens*.

9. Analytic Definition : The traditional form of definition is known as *definition per genus et differentiam* (i. e. definition by assigning the genus and the differentia or distinguishing characteristic). This expresses Aristotle's view that definition states the essence of what is defined. To understand it properly it is necessary to recall Aristotle's theory of the Predicables for it has an important bearing upon the traditional theory of definition.

10. Aristotle gives the following definitions of the four Predicables included in his list :

1. 'A "definition" is a phrase signifying a thing's essence.

2. A "property" is a predicate which does not indicate the essence of a thing, but yet belongs to that thing alone, and is predicated convertibly of it.

3. A "genus" is what is predicated in the category of essence of a number of things exhibiting differences in kind.

4. An "accident" is something which may possibly belong to any one and the self-same thing.'

—*Topica*

11. Aristotle had made a distinction between the 'essence' of 'a thing' which formed part of the definition of that thing and what follows from the essence, which constituted the propria or properties of that thing. He regarded the subject to be defined as always a species, i. e. a class-name. Two or more species having common characteristics constitute 'a kind' which he called 'genus'. Further, one species can be differentiated from another belonging to the same genus by a characteristic or characteristics, which he called 'differentia'.

12. It was in the back-ground of this doctrine of the Predicables that the traditional logicians maintained that definition should be made *per genus et differentiam*. This rule assumes Aristotle's view that definition expresses the essence of what is defined. Accordingly, the traditional view is that what is defined is species or concepts and not names. Definition, so looked, will be fixed and permanent, not arbitrary, for the essence of 'a thing' is also fixed and determinate. Hence also the absolute distinction between 'essence' and 'property'. But to quote the opinion of Stebbing, "So long, too, as there was belief in the fixity of organic species, it would seem that each species had an

essence which must be stated in the definition. Modern theories of organic evolution have combined with modern theories of mathematics to destroy the basis of Aristotelian conception of essence and hence to throw doubt upon the traditional theory of definition."

13. Limitations of Definition : Definition *per genus et differentiam* or *analytic definition*, as it is generally called, calls for the statement of the *proximate* genus of 'a thing' and its differentia. In the definition, 'Man is a rational animal', 'animal' is the *proximate* genus of 'man' and 'rational' is the differentia, i. e. the species man belongs to the class 'animal' and is differentiated from other species belonging to the same genus, such as, monkeys, cows, etc. by the characteristic of rationality. Now in actual practice it will be seen that we cannot define many terms in the above manner. No non-connotative terms can be analytically defined, because they cannot be split up into genus and differentia. Other terms incapable of being defined analytically are the following :

1. *Summum genus* cannot be defined analytically because there is no higher class than that.

2. Proper names also cannot be so defined, because they are non-connotative.

3. We cannot define elementary qualities such as honesty, happiness, sweetness, etc. Since they too have no connotation.

4. Attributives cannot be defined since they express only qualities when standing as predicates, e. g. virtuous, intelligent, decent, etc. are incapable of definition.

14. Great difficulty is experienced in defining common objects like horse, table, cow, etc. Again the terms used in social sciences are also hard to define analytically. Thus 'wealth', 'rent', 'labour' etc. cannot be easily defined.

15. The real distinction lies between terms used in sciences like Geometry and those denoting common objects. Whereas the connotation of the former remains fixed and unchanged, that of the latter is subject to constant change. Fresh advances in knowledge may change differentia into propria and propria into differentia. Analytic definition would be the beginning and end of science if knowledge were perfect and if nothing remained to be discovered or explored. Failing that it can at best be an approximation to truth.

16. **Rules of Definition :** Certain rules embodying the requirements of a logical definition have been recognised by logicians. They are simply negative ways of expressing the traditional principle of definition. They are as follows :

17. (1) *A Definition should state neither more nor less than the whole connotation of the term defined.*

18. Suppose the definition states more than the whole connotation. The additional attributes will then be either properties or accidents. If the definition includes property or properties it is **Redundant** and lacks precision and exactness. The inclusion of properties does not alter the denotation of the term defined but it suggests that there might be objects which, though they may not possess these additional attributes may yet exist. For example, if we define a triangle as 'a plane rectilinear figure bounded by three lines and having three angles,' the addition of the attribute of having three angles in the definition suggests that there may be some plane rectilinear

figure bounded by three lines but not having three angles, which is impossible. The addition of this attribute (property), however, does not result into a change of denotation of the term defined. All plane rectilinear figures bounded by three lines have three angles.

19. If the additional attribute is an accident, the definition is **Too Narrow**. If we define a man as 'a rational animal who wears clothes' we alter the denotation of the term defined because it does not apply to those primitive persons who do not wear clothes.

20. Now let us examine the case when a definition states less than the whole connotation. If we define an equilateral triangle as 'a plane rectilinear figure bounded by three sides' our definition is faulty, because it applies to all triangles and not merely to those which are equilateral. Here the definition is **Too Wide**.

21. (2) *A Definition should not be expressed in obscure, figurative or ambiguous language.*

22. If a definition is not clear and intelligible, it defeats its own purpose. Dr. Johnson's definition of a net as 'a reticulated fabric, decussated at regular intervals, with interstices between the decussions' is a familiar example of the breach of this rule. Similarly, sayings like "Lion is the king of beasts," "Prudence is the ballast of moral vessel," are good metaphors but bad definitions. A definition should not explain the unknown by the more unknown (*ignotum per ignotius*) or the unknown by equally unknown (*ignotum per aequè ignotum*).

23. (3) *A Definition should not contain the term to be defined or a word which is synonymous with it or implies it.*

24. The aim of logical definition is to give an insight into the essential nature of the thing defined by analysing its connotation. If we seek to define a term by an equivalent term it is merely tautologous. Thus to say that 'Truth is veracity of speech,' 'Force is a motive power,' etc. is simply to state the synonyms of the terms defined. Similarly, any attempt to define a term by means of the term itself is quite meaningless, e. g. 'Justice is the way of acting justly,' 'A ruler is a person who has subjects,' etc. But the most common fallacy committed owing to the breach of this rule is *circulus in definiendo* or a circle in definition. This consists in defining or explaining a term and proceeding later on to explain the definition or explanation by the original term itself. A circle in definition is found frequently in long and involved definitions. Ueberweg cites the following example of a circle in definition from the German writer, Maass: " 'A feeling is pleasant when it is desired because of itself.' 'We desire only what we in some way represent to be good.' 'The sensibility takes that to be good which warrants or promises pleasure, and affects us pleasantly; the desires rest on pleasant feelings'. The pleasant feeling is here explained by the desire, and the desire again by the pleasant feeling."

25. (4) *A Definition should, whenever possible, be affirmative, rather than negative.*

26. To state merely what a thing is not, gives no clear idea of what it is. A definition should state what a term implies, rather than what it does not imply. Mere negation leads to no positive advance of knowledge and results into what is known as an 'infinite' definition, for to

state what a thing is not would be an infinite process. Examples of negative definitions are quite common, e. g. 'Virtue is that which is not vice,' 'Knowledge is the opposite of ignorance,' 'Liquid is that which is neither solid nor gaseous', etc. There are, however, certain exceptions to this rule. Terms like alien, indivisible, non-electron, etc. are best defined negatively. Thus to define an alien as 'one who is not citizen of India' is quite correct. Some definitions look negative in form but are really not, e. g. 'A bachelor is an unmarried man.'

Order of questions discussed in this chapter

- Q. 1. Discuss the general nature and meaning of Definition. Paras. 1, 2.
- Q. 2. How does Definition differ from Description? Para. 3.
- Q. 3. Differentiate between the following types of definitions: (a) Ostensive (b) Biverbal (c) Nominal and Real (d) Substantial and Genetic. Paras. 4 to 7.
- Q. 4. Explain the traditional doctrine of Definition *per genus et differentiam*. Paras. 9 to 12.
- Q. 5. How are Predicables related to Definition? Paras. 9 to 12.
- Q. 6. What are the limits of Definition? Paras. 13 to 15.
- Q. 7. What are the general rules of Definition? Paras. 16 to 26.

- Q. 8. Write short notes on the following : (a) Circle in definition (b) Negative definition. Paras. 24 to 26.
- Q. 9. Are definitions arbitrary ? Para. 12.

Related University Questions

- Q. 10. What is Definition ? What are its limits ? (B. U. 1949) Paras. 1, 2, 13 to 15.
- Q. 11. Distinguish between Definition and Description (B. U. 1950) Para. 3.
- Q. 12. What is the test of a good Definition ? Can every term be defined ? (G. U. 1951) Paras. 16 to 26, 13 to 15.
- Q. 13. State and explain the rules of valid Definition. (G. U. 1951). Paras. 16 to 26.
- Q. 14. What are the chief requisites of a good Definition ? (G. U. 1952) Paras. 16 to 26.
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CHAPTER XVI

DIVISION

1. **General Nature:** As definition is a statement of the connotation of a term, so DIVISION IS AN ANALYSIS OF ITS DENOTATION. By it we do not mean the enumeration of individuals which make up the class denoted by a term. It means the analysis of a genus into its different species and sub-species. Thus Dr. Keynes observes, "The term Division may be defined as the setting forth of the smaller groups which are contained under the extension of a given term. It is also defined as the separation of a genus into its constituent species."

2. In dividing a term we split up the *genus* or the higher class of which that term is the name into its *species* or sub-classes. Each sub-class may be divided further and further till we reach the *infima species*. The genus which is to be divided is known as the *totum divisum* or divided whole or *dividend*; the species into which it is divided are called the *membra dividenda* or dividing members. Every act of division is based on a principle which has its roots in the definition of the genus we are dividing. This basis or principle is called the *fundamentum divisionis* or basis of the division. The same genus may be divided into different sets of species according to different principles or bases of division and the process is known as co-division. The sub-classes obtained by co-division more or less overlap each other.

3. Division and other processes : Logical division should be distinguished from certain processes superficially resembling it. They are : (1) physical partition which consists in analysing a thing into its parts, e. g. a building into foundation, floor, walls, roofs, etc. (2) conceptual analysis or metaphysical division which consists in enumerating the attributes of a class or of an individual, e. g. gold into hardness, yellowness, malleability, etc. (3) verbal division or distinction of the various meanings of an equivocal term, e. g. 'sharp' meaning either 'with fine edge or point' or 'vigilant' or 'clever'.

4. Unlike all these processes, in a logical division the genus or term to be divided is predicable of each of the species into which it is divided, e. g. obtuse-angled triangles, right-angled triangles, acute-angled triangles are all triangles.

5. Limitations of Division : It is held *infima species* cannot be divided. This view is correct so long as the *infima species* are incapable of being sub-divided into groups. But by finding a new basis of division we can divide even the lowest class of individuals into still lower classes. Thus man, plant, monkey, etc. are all capable of division.

Singular and collective terms cannot be divided as they do not represent classes. But a collective term can be rendered divisible by transforming it into a class-term. Thus "the Imperial Library of Calcutta" can be converted into "the books of the Imperial Library of Calcutta" and thus made capable of division. Similarly, abstract terms and attributives cannot be divided because they are devoid of denotation.

7. Only class-terms or such of the abstract terms which are employed as class-terms are capable of division.

8. **Rules of Division:** (1) Each act of division must have only one principle of division or *fundamentum divisionis*. Breach of this rule results in the fallacy of **cross division**. Thus if we divide men into Asiatics, Negroes, Japanese and civilized, the division involves four principles and therefore suffers from the fallacy of cross-division. It will be noticed that the different sub-classes in the cross-division are over-lapping with each other. e. g. in the above division Asiatics are also civilized and a part of them are Japanese. For a logical division to be valid the sub-classes into which a genus is divided must be mutually *exclusive*.

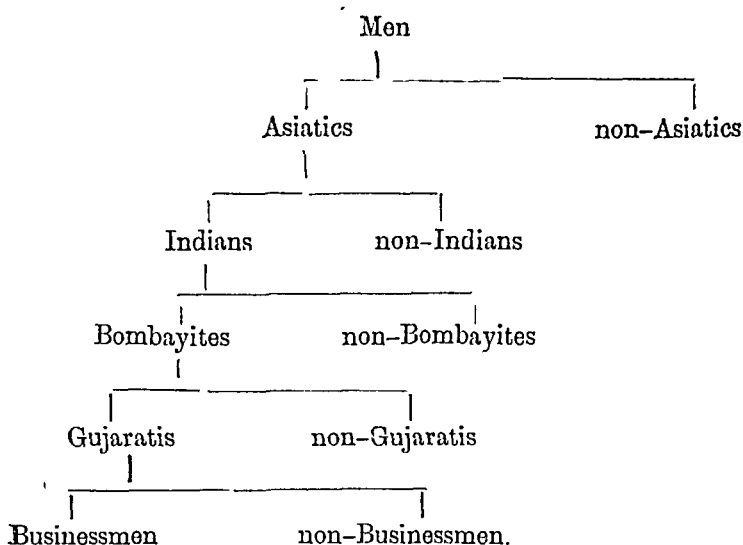
(2) The division must be *exhaustive*, i. e. the constituent species or sub-classes must be together equal to the genus in denotation. Breach of this rule results in the fallacy of division not being exhaustive or **inexhaustive division**. For example, if we divide men into virtuous and wicked, the division is not exhaustive, because there are people who are neither virtuous nor wicked. This fallacy results either when some species is not included in the division or when something which is not a species of the genus to be divided is included in the division.

(3) *Division non faciat saltum or division non fiat per saltum*, i. e. division must not make a leap. This means that if the division is carried beyond one step, each step must as far as possible be proximate, i. e. the division should take only one step at a time and should omit no intermediate species. The violation of this rule usually results into division being **too narrow**. Thus if we divide

triangles into acute-angled, right-angled and scalene triangles, the division is not step by step, for the intermediate species of obtuse-angled triangles has been omitted. The division has made a leap. Generally, in the case of a division being too narrow, the fallacy of cross-division is also committed, because more than one principle of division are employed. Thus Rule (1) is the most fundamental of all and implies the other two.

11. Is Division formal : From the above discussion it should be evident that logical division is not a purely formal process. It can not be carried out unless we have some knowledge of the matter, i. e. the genus to be divided. How can a division be exhaustive unless we possess complete knowledge about all the species that constitute a genus. Further, in order to divide a term into its constituent species we must know the differentiae of the various species and this can be possible only by observation of facts. The attempt, therefore, to distinguish between classification and division, by regarding the former as material and the latter as purely formal is ill-founded. Logical division is impossible without the consideration of material facts.

12. Division by Dichotomy: Formal logicians, working upon a suggestion of Plato, developed a method of division with an appearance of being purely formal. This is called *division by dichotomy*, i. e. division at every step into a positive and its corresponding negative term. It may be illustrated by the following example :



13. This division is assured of complete formal validity and seems to be formally exhaustive, because it is based upon the principle of Contradiction and Excluded Middle. Dichotomous or bifid division, therefore, does not violate any of the rules of division. The *Tree of Porphyry* is an exemplification of division by dichotomy. Bentham and Jevons hold it as a perfect form of division. But it is open to the following objections :

1. It does not represent our actual process of division.

2. It is far from being *A priori* and purely formal. Each step of division presupposes the knowledge of the meaning of the positive term. Unless we know the

connotation or properties of the genus we cannot divide it. Moreover, a real *fundamentum divisionis* means the assumption of something *a posteriori* or material.

3. At each step the sub-class denoted by the negative or infinite term is entirely undefined and we are left absolutely ignorant about its reality

4. Division by dichotomy is entirely hypothetical to the extent that it is formal. In itself, it does not guarantee the existence of any of the sub-classes.

5. This method gives the false impression as if the coordinate species of a genus are subordinate to one another, e. g. Asiatics, Indians, Bombayites, etc. are all coordinate species, of man.

6. It is an excessively cumbrous and unnatural process.

14. Uses of Dichotomy : In spite of the above objections, Division by dichotomy is sometimes useful. Although dichotomy cannot be adopted as a final arrangement, it is sometimes useful in testing the validity of a division, especially in finding out whether it is exhaustive. Dichotomy can also be helpful to mark distinctions as a preliminary step to genuine division. Sometimes, in the arranging of objects, when further division seems impossible, we add a class 'miscellaneous' which means "all those not in any named class." Thus Jevons observes, ".....in less certain branches of knowledge, our divisions can never be free from possible oversight unless they proceed by dichotomy. All the divisions of Naturalists are liable to this inconvenience." But never do we form a class that can be indicated by a mere contradictory term, for it is quite absurd to do so when we know definitely the number

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of sub-classes in which a term can be divided. Therefore, division by dichotomy cannot be held to be a useful instrument in the discovery of truth; its value should be limited merely as a principle of order and arrangement.

15. Division and Predicables : Like definition, division is also connected with the theory of predicables, although division is not generally expressed in the form of a proposition. We cannot divide a term unless we are acquainted with the relationship between a genus and its species. We must know all the species into which the genus can be divided. This involves some knowledge of the differentiae of the various species. This in turn presupposes the knowledge of propria and accidens without which differentia cannot be correctly determined. Hence the dependence of division upon the theory of predicables.

16. Definition and Division : Before we end this discussion it is necessary to point out the relation between logical definition and division. We have seen that definition is the explicit statement of the connotation of a term, while division is the analysis of its denotation. Connotation and denotation being two kinds of meaning of a term are interrelated with each other. Therefore definition and division are also closely related to each other. In defining we start with a species and assign a genus to it together with its differentia, while in dividing we start with a genus and split it up into its various species on the basis of their differentiae. This will mean that in defining we divide and in dividing we define. For no definition is complete unless it states the differentia of the term defined and this is possible only when we know all the cognate species of the genus to which the term to be defined

belongs. When we define man as 'rational animal' we must be aware of other animals which are not rational. Similarly, division of a genus into its constituent species is not possible unless we can in some way define them. It implies the genus and the differentiae of the dividing members and this involves definition. For example, when we divide triangles into equilateral, isosceles and scalene we assume the differentia of each cognate species, viz. having all the three sides equal, having two sides equal and having unequal sides. This together with the genus divided will give the definition of each species.

17. Though definition and division are so closely related, the former precedes the latter in the order of our obtaining knowledge. We cannot divide things unless we can in some way define them. Formally, each class is determined by connotation and not by denotation. Usually it is the connotation of a term that determines its denotation. Again it is the connotation of a term that supplies the *fundamentum divisionis*. Unless the species into which a genus is divided can be adequately defined, it is difficult to apply the principle or basis of division. An appeal to the objects included in a genus is necessary if the division is to be of any practical use and this is possible only when the objects appealed to are *known* i. e. defined.

18. The aim of both definition and division is very much similar. Both help in making knowledge clear and precise. Division renders the comprehension of a subject easier and more complete by arranging its various parts in an orderly way. It is an important aid to specialization and to the discovery of secondary laws. All

scientific knowledge depends for its systematization equally on definition and division. By giving the comprehension of a term, definition serves to make its meaning *precise*; by analysing the extension of a term, division serves to make its meaning *distinct*.

Order of questions discussed in this chapter

- Q. 1. Discuss the general nature and meaning of Division. Paras. 1, 2.
- Q. 2. Distinguish logical division from (1) physical partition (2) metaphysical division and (3) verbal division. Paras. 3, 4.
- Q. 3. What are the limits of logical division? Paras. 5 to 7.
- Q. 4. Discuss the general rules of Division. Paras. 8 to 10.
- Q. 5. Is logical division purely formal? Para. 11.
- Q. 6. Explain and criticise Division by Dichotomy. Paras. 12 to 14.
- Q. 7. What are the uses of Dichotomy? Para. 14.
- Q. 8. How are Predicables related to Division? Para. 15.
- Q. 9. Compare and contrast between definition and division. Paras. 16 to 18.

Related University Questions

- Q. 10. (a) State and illustrate the rules of logical Division. Paras. 8 to 10.

(b) What is Division by Dichotomy? Discuss its value and defects. (B. U. 1950)

Q. 11. What is Logical Division? Explain the rules of Logical Division. (G. U. 1951)

CHAPTER XVIII

IMPORT OF PROPOSITIONS AND THEORIES OF PREDICATION

1. Introductory : In this chapter we are going to consider two intimately related problems : (1) To what does the proposition as a whole primarily refer—to names, to ideas or to real things ? (2) How are we to interpret the subject and predicate terms of a logical proposition and what kind of relation between the two does the proposition express ? The first problem leads to the consideration of the import of propositions. The second is concerned with the various theories of predication.

2. Import of Propositions : In a logical proposition one term is predicated of another. In order to know the import of the proposition we must know the import of the predication. (1) Is a proposition nothing more than a certain synthesis of words ? (2) Is it meant to correspond with some thing further—a synthesis of ideas ? (3) Does it correspond with a relation of facts ? In other words, to what does the proposition as a whole primarily refer—to names, to ideas or to real things ? Three different theories have been advanced in answer to this question which are briefly reviewed below.

3. (1) **The Nominalist view:** Hobbes held the view that a proposition expresses a relation between two names. According to him a proposition affirms or denies that the predicate is a name for the same thing as the subject, as 'Tully is Cicero.' Here 'Cicero' is but a name of him who is called 'Tully.' This nominalistic view implies that truth means mere consistency in the use of names. But to be consistent does not morely mean varbal consistency; it means consistency of meaning. Every proposition refers to meanings. No proposition can express a relation between mere names. A proposition without any reference to things or meanings is an unmeaning combination of symbols. Thus even the proposition 'Tully is Cicero' would be unintelligible if it were nothing more than a statement about the relation between the name 'Tully' and the name 'Cicero' for in that case Tully and Cicero might mean anything. It can assume the character of a logical proposition only when Cicero refers to an individual, i. e. when it is a statement of the *meaning* of the name 'Tully.'

4. (2) **The Conceptualist view:** According to this view, the proposition states a relation between concepts or ideas. The relation is either of agreement or disagreement according as the proposition is affirmative or negative. Conceptualists speak of judgements instead of propositions. According to Hamilton a judgement is "a recognition of the relation of congruence or confliction in which two concepts stand to each other." "Thus" he adds, "if we compare the thoughts *water*, *iron* and *rusting* we find them congruent, and connect them into a single thought, thus: *water rusts iron*—in that case we form a judgement." When a judgement is expressed in words, he says, it is

called a proposition. This theory is based on the assumption that the knowledge and thinking of every person consist primarily of his own ideas. Whether our ideas refer to something beyond themselves, to something real, is a problem for Metaphysics to decide. Firstly, it is doubtful if our judgements refer to real things. But even if some judgements do refer to real things, all judgements need not and do not do so. But all judgements must be concerned with some ideas or notions or concepts at least. Hence, as a general theory of propositions we should maintain that all propositions state a relation between ideas.

5. The above view contradicts the real nature of judgements. Any judgement in order that it may be a part of a system of knowledge must embody a unity in difference, it must have *one* idea and not two independent ideas. The plurality of concepts is presented as a unified notion in the form of a judgement.

6. The interpretation of the conceptualist view as given by Mill and Bosanquet does not seem to be correct. According to Mill the conceptualist statement of the proposition 'Fire causes heat' will be 'My idea of fire causes my idea of heat'. Here is an obvious reference to things beyond ideas as the use of the word 'causes' suggests and as such Mill's interpretation of the conceptualist theory reduces the latter to an absurd and self-contradictory position.

7. The conceptualist theory is right in maintaining that the judgement or proposition always involves an idea or ideas. But its mistake lies in ignoring the fact that a mere idea can not float into air, it must be an idea of

something, it must refer to something other than and beyond itself.

8. (3) **The Realist view :** The third theory holds that the proposition refers to real things. Mill held that almost all propositions are made with reference to reality. While proceeding to inquire into the import of propositions he finds three cases of them :

9. (a) Those propositions in which one proper name is predicated of another and of these Hamilton's Nominalistic view gives an adequate interpretation, e. g. "Tully is Cicero."

10. (b) Those propositions in which the predicate means a part or the whole of what the subject means, e.g. 'Horses are animals' 'Man is a rational animal'. These are verbal propositions (See chap. XV, para. 37) and their import consists in affirming or denying a coincidence between the meanings of names, as the meaning of 'animal' is part of the meaning of 'horse'.

11. (c) Those propositions whose predicates do not mean the same as their subjects. They are Real propositions (See chap. XV, para. 38). Their import consists in affirming or denying one of five different kinds of matter of fact, viz. (i) Existence or non-existence of the subject, e. g. 'The elephant exists', 'The Pandavas are extinct', (ii) Co-existence, e. g. 'Man is mortal' (i. e. mortality co-exists or coinheres with humanity), (iii) Succession e. g. 'Night follows day', (iv) Causation, e. g. 'water rusts iron', (v) Resemblance, e. g. 'The face of this boy is like that of Milton'.

12. Mill held that Logic is concerned with the grounds of belief and that the scope of Logic includes both Deduction as well as Induction. He was right in regarding 'congruity' of concepts as an inadequate basis of a judgement. He, accordingly, believed that the Real Proposition is concerned not merely with the relations of words, or of ideas, but with matters of fact. Therefore, almost all propositions are made not with reference to ideas or names but with reference to phenomena, real things. By a 'thing' Mill means a phenomenon or a group of phenomena. He further regards a 'thing' as a "bundle of attributes".

13. Now in so far as Mill's contention that the proposition always refers to things is concerned, there does not seem to be much cause to dispute with it. But it is far from admissible that a thing is an aggregate of phenomena or attributes. A thing is more than a mere 'bundle of attributes.'

14. In the back-ground of the above facts we cannot wholly agree with Carveth Read when he states Mill's view of the Real proposition as a 'predication concerning the relation of matters of fact.'

15. **Bradley's View:** F. H. Bradley has tried to combine the best elements of the Conceptualist view with those of the Realist view of Mill. According to him "Judgement proper is the act which refers an ideal content, recognised as such, to a reality beyond the act." It is true that a judgement involves an idea or concept, but it also refers this idea or concept to an objective reality.

16. Every proposition is made in a certain universe of discourse which may include the world of mythology, fiction, mind, etc. Within this context it has a reference to reality. It asserts existence within its particular sphere of reference. Viewed thus, every proposition has an existential import. Commenting upon this James remarks: "In the strict and ultimate sense of the word, 'existence,' everything which can be thought of at all exists as some sort of object, whether mythical object, individual thinker's object or object in outer space and for intelligence at large." Such an all-comprehensive reality, or, reality as a whole is surely necessary as a guarantee for systematic thinking and all propositions in so far as they refer to such reality are parts of a system and have an existential import. Every proposition, in this sense, is adjectival in nature, and is a single act of thought (having an 'ideal content' or a meaning which is a unity in difference). The reality which the meaning or 'ideal content' of the proposition qualifies is proximately that determined by the universe of discourse, but ultimately it is reality as a whole.

17. Thus Bradley agrees with the conceptualists that the proposition refers to ideas; it has an ideal content. But he goes further,—and here he differs from them—and maintains that the import of the proposition is not the relation between two independent ideas but the reference of an idea or 'ideal content' to reality. This idea or 'ideal content' as we have observed before, is the single act of judgement which reveals the underlying unity which is present in the midst of variety and difference.

18. The above view is quite in conformity with the correct interpretation of the Law of Identity according to which a judgement brings together differences, i. e. different things and qualities and reveals that they are parts of one whole or unity (See chap. II, para. 7).

19. Again, Bradley agrees with Mill and the other Realists in holding that the proposition refers to thing, to reality. But he differs from Mill in maintaining that just as the principal function of the proposition is not to connect together two ideas, similarly, it is also not to connect together independent phenomena, because a 'thing' is not merely an aggregate of phenomena but a system, a unity.

20. **Bosanquet on Judgement:** Lest the views of Bradley should give a wrong impression that judgement is something external to reality and that in judging we may refer ideas to reality without any bond of connection between the two, Bosanquet has given a modified version of Bradley's statement by defining judgement as "the reference of a significant idea to a subject in reality by means of an identity of content between them."

21. Bosanquet's definition has obvious advantages over the one given by Bradley. It makes the reference of the judgement to reality more precise by indicating that the reference is to a definite element in reality (a 'subject') and to reality as a whole and by maintaining that the nature of the reference is the identity of content between the 'significant idea' and the 'subject'. Thus in making the judgement 'this rose is white' it is asserted that there is an identity between the meaning of the idea 'white rose' and the object referred to.

22 This appears to be the most satisfactory interpretation of the import of propositions. It ensures the universality, permanence and identity of propositions by assigning them a place in a wider system and by stressing the fact that the ground of each proposition lies in the bond of connection between the idea and the reality.

23. Theories of Predication : A theory of Predication indicates a view of the meaning of the subject and the predicate terms of a logical proposition and of the character of the relation between them. Each term has a two-fold meaning in connotation and denotation and it may be read primarily in either meaning. Since there are two terms and two kinds of meaning in which they can be used there are in all four possibilities :

- (1) The subject may be read in denotation and the predicate in connotation ;
- (2) Both terms may be read in denotation ;
- (3) Both terms may be read in connotation ;
- (4) The subject may be read in connotation and the predicate in denotation.

24. Let us illustrate these possibilities by taking a concrete example. If we take the proposition 'All men are mortal' we can read it in four different ways :

- (1) The objects denoted by 'man' *possess* the attributes connoted by 'mortal' ;
- (2) The objects denoted by 'man' are *included* within the class of objects denoted by 'mortal' ;
- (3) The attributes connoted by 'man' are *accompanied* by the attributes connoted by 'mortal' ;

(4) The attributes connoted by 'man' indicate the presence of an object belonging to the class denoted by 'mortal.'

25. It will be seen that according as a different mode of analysis is adopted, a different character of relation between the subject and predicate terms is brought out. Thus the different relations are respectively those of (i) *possession* (ii) *inclusion* (iii) *concomitance* or *accompaniment*, and (iv) *indication*.

26. The above mentioned four different modes of reading the subject and the predicate terms give rise to four corresponding theories of Predication : (1) The Predicative theory, (2) The Denotative theory, (3) The Connotative theory and (4) The Indicative theory respectively. Let us consider each one of these at some length.

27. (1) **The Predicative Theory :** *Subject in denotation, predicate in connotation* : This view most nearly corresponds in the great majority of cases with the course of ordinary thought "though perhaps" as Keynes observes, "what is actually present to the mind is usually rather more complex than what is represented by any one of the four readings taken by itself." We naturally contemplate the subject for a thing or group of things of which a certain attribute is either affirmed or denied. Although not explicitly stated, this seems to have been the view of Aristotle. But sometimes he also speaks as if the proposition stated a relation between two names or between two things. It is true many propositions do not conform to the Predicative view e.g. 'All palms are endogens', 'Hindoos are Aryans' are propositions in which the primary meaning of the Predicate is not in connotation. Here as Dr. Venn puts it, "the

class-reference of the predicate is no less definite than that of the subject." Moreover, as Keynes points out, "In the case of such a proposition as *No plants with opposite leaves are orchids* the position is even reversed, that is to say, it is the subject rather than the predicate that we should more naturally read in connotation."

28. The relation between the subject and the predicate, according to the Predicative theory is one of *possession* or *non-possession*, i.e. in every proposition the thing or things denoted by the subject either possess or do not possess the attribute or attributes connoted by the predicate. Thus in the proposition, 'Man is mortal', the objects denoted by 'man' possess the attribute connoted by 'mortal' i. e. mortality. In the proposition 'No man is perfect', the objects denoted by 'man' do not possess the attribute connoted by 'perfect', i. e. perfection.

29. The Aristotelian classification of propositions (A, E, I and O) according to which only the subject is quantified, is based on this theory.

30. (2) The Denotative theory: *Both subject and predicate in denotation*: This theory was more or less the ruling theory of the Scholastic Logic. It has received considerable support even in the modern times and has been developed into the equational theory of the proposition according to which the things denoted by the subject are identical with, or equal to those denoted by the predicate. This has been explained more fully in connection with the problem of the predicate proposed by Sir William Hamilton (See chap. IX, para. 38).

31. The Denotative theory, being extremely convenient for manipulative purposes, is usually preferred by

the formal logicians. A process like *conversion* can be possible only when both the subject and the predicate are read in denotation. Syllogistic inference is also possible when both these terms are read either in denotation alone or in connotation alone. While stressing the distribution of terms both in the immediate as well as mediate inference, we proceed on this theory only. Similarly, in the diagrammatic representation of propositions both subject and predicate are necessarily read in denotation. The class view or the denotative view will be obviously right if classification is taken as the ideal of science.

32. The opponents of the Denotative theory advance the following arguments :—

(a) It is not the ordinary or natural course of our thought in the majority of cases. Thus, if I say ‘Ram fell from a house-top’, I can hardly be said to mean that Ram is included in a class of things which fell from the house-top. Further, it is held that to read both subject and predicate in denotation is psychologically false. Against this however, it should be said that there are exceptions to this, for example, propositions like, ‘All Hindoos are Aryans’ ‘All owls are birds’ obviously adopt the class view.

(b) It is asked, ‘what is meant by a class’? When we say “All owls are birds”, what do we mean by the class of birds? Thus Welton remarks, “It is nothing existing in space; the birds of the world are no where collected together so that we can go and pick out the owls from amongst them. The classification is a mental abstraction of our own, founded upon the possession of certain definite attributes. The class is not definite and fixed, and we do not find out whether any individual

belongs to it by going over a list of its members, but by enquiring whether it possesses the necessary attributes." But this criticism does not bear examination. As Keynes has shown this argument must equally apply against reading the subject in denotation in so far as it applies against reading the predicate in denotation. Moreover, in the last analysis, the argument boils down to the same as used by Mill to support his position that the *ultimate* interpretation of the categorical proposition requires us to read both subject and predicate in connotation, because denotation is determined by connotation. "But if this be granted, it does not prove the class reading of the proposition erroneous; it only proves that in the class reading, the analysis of the import of the proposition has not been carried as far as it admits of being carried." —Keynes

(c) It is argued that "this view of predication neglects the essential unity of the judgement and regards it as stating a relation between two independent objects rather than as expressing an interpretation of one element or aspect of reality". —Welton.

(d) Again, it is argued that even from the view of class-inclusion, the predicate is only *apparently* read in denotation. In the words of Welton, "On this view, we do not really assert P but 'inclusion in P', and this is therefore the true predicate. For example, in the proposition, 'All owls are birds', the real predicate is, on this view, not 'birds' but 'included in the class birds'. But this inclusion is an attribute of the subject, and the real predicate therefore, asserts an attribute. It is meaningless to say 'Every owl is the class birds.' This argument does not carry much weight. As Keynes puts it "An analogous argument might also be used against the predicative reading itself.

Take the proposition, 'All men are mortal'. It is absurd to say that 'Every man is the attribute mortality,' or that 'The class men is the attribute mortality'."

(e) Lastly, it is said that the class view would lead to five forms of propositions as opposed to the traditional four, because, as the Euler's circles (See chap. IV, paras. 35, 36) show, there are five possible relations between two classes. Their argument will, however, lose its force if we deny the validity of the assumption which this argument involves that "in thought the predicate is always quantified" as maintained by Hamilton.

33. The relation between the subject and the predicate, according to the Denotative theory is one of *inclusion* or *exclusion* i. e. the things denoted by the subject are to be viewed as either included in, or excluded from those denoted by the predicate. For example, in the proposition 'All owls are birds' the class of things denoted by 'owls' is included in the class of things denoted by 'birds'. In the proposition 'No bird is featherless' the class of things denoted by 'bird' is excluded from the class of things denoted by 'featherless.'

34 (3) **The Connotative theory** : *Both subject and predicate in connotation* : This theory which is expounded by J. S. Mill is also called the *Attributive view*. Mill attaches great importance to the Connotative theory because it carries the analysis a stage further in so far as the application of the terms involved is determined by connotation and not by exemplification. According to Mill, "the assertion made by a proposition is "that the attributes which the predicate, connotes are.....possessed by each and every individual possessing certain other

attributes ; that whatever has the attributes connoted by the subject has also those connoted by the predicate ; that the latter set of attributes *constantly accompany* the former set. Whatever has the attributes of man has the attribute of mortality ; mortality constantly accompanies the attributes of man."

35. According to the Connotative theory the A, E, I and O proposition should be read in the following ways :

(i) A : "the attributes which constitute the connotation of S are always found accompanied by those which constitute the connotation of P."

(ii) I : " the attributes which constitute the connotation of S are sometimes found accompanied by those which constitute the connotation of P. "

(iii) E : " the attributes which constitute the connotation of S are never found along with those which constitute the connotation of P. "

(iv) O : "the attributes which constitute the connotation of S are some times found unaccompanied by those which constitute the connotation of P. "

36. The expression of the quantity of the propositions in the above example by 'always' and 'sometimes' in place of by 'all' and 'some' is significant. This is because while reading the terms connotatively we always take the attributes which constitute the connotation, i. e. "by the attributes constituting the connotation of a term we mean those attributes regarded as a whole. Thus, *No S is P* does not imply that none of the attributes connoted by S are ever accompanied by any of those connoted by P."

—Keynes.

37. The opponents of the connotative theory argue that the use of 'always' and 'sometimes' takes us at once to that to which the name is applicable, i. e. to denotation. In this connection it should be admitted that generally mere assertion of attributes independently of the objects to which they refer is not possible. Any satisfactory theory of Predication must take into consideration more or less both connotation as well as denotation of terms although the emphasis on one or the other in each case may vary.

38. It is evident from the foregoing discussion that the relation between the subject and the predicate according to the Connotative theory is one of accompaniment or concomitance in the case of affirmative propositions and that of disagreement or unaccompaniment in the case of negative propositions.

39. According to another view expounded by Sir W. Hamilton and commonly known as the **Comprehensive view**, the relation between the subject and the predicate is that of comprehension. Welton states it thus: "every judgement expresses not only a quantitative relation in extension or denotation between subject and predicate, but also a similar relation in comprehension." According to this view both the subject and the predicate may be read either in denotation or in connotation. If they are read in denotation, the relation between them is one of inclusion—the subject is included in the predicate; if they are read in connotation, the relation between them is one of comprehension—the predicate is comprehended in the subject. Though in either case there is a quantitative relation between the subject and the predicate, the interpretation of the copula is modified according as the terms are read in denotation

attributes ; that whatever has the attributes connoted by the subject has also those connoted by the predicate ; that the latter set of attributes *constantly accompany* the former set. Whatever has the attributes of man has the attribute of mortality ; mortality constantly accompanies the attributes of man."

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—Keynes.

does or does not constitute a part of the other, either in the quantity of Extension, or in the quantity of Comprehension."

41. (4) The Indicative theory : *Subject in connotation, predicate in denotation :* This theory states : "The attributes connoted by S are an indication of the presence of an individual belonging to the class P." Except for some rare cases when this mode of reading is not unnatural, it has a very limited application. Propositions like 'No plants with opposite leaves are orchids' and 'All that glitters is not gold' easily and naturally lend themselves to this mode of reading. In the latter proposition the subject is attributive, while the predicate is substantive. "The most striking difference between a substantive and an attributive (i. e. an adjective or a participle) from the logical point of view is that in the former the denotation is usually more prominent than the connotation, even though it may be ultimately determined by the connotation, whilst in the latter the connotation is the more prominent, even though the name must be regarded as the name of a class of objects if it is entitled to be called a *name* in the strict logical sense at all."

—Keynes.

42. Since in the majority of cases the Indicative Theory is not applicable and both psychologically and logically it is the least justifiable, we may not discuss it further.

43. Existential scheme of propositions : In the previous section on the import of propositions, it has been shown how every proposition has a reference to or asserts existence in its ultimate and wide sense. Some logicians

or in connotation. "In the one process,—that, to wit, in extension, the copula *is* means *is contained under*, whereas in the other, it means *comprehends in*".—Hamilton For example, 'Man is mortal' when read in denotation, means the class of objects denoted by 'man' is contained or included in the class of objects denoted by 'mortal'; and when read in connotation it means that the attribute connoted by 'mortal' viz. 'mortality' is comprehended in the attribute or group of attributes connoted by man, viz. 'humanity.'

40. The view that both the subject and predicate are read either in denotation or in connotation is at best of partial application. We have already seen in connection with the Denotative theory the difficulties arising from a denotative reading of the terms. If the terms are read connotatively, there may be two likely cases according as comprehension means either (i) all common attributes of a class, or (ii) connotation in the sense of conventional intension. In the former case propositions like 'Man is mortal', 'Hindoos are Aryans' become analytic as the predicate merely states some of the attributes implied by the subject, and analytic propositions do not lead much to the enhancement of knowledge. If the latter meaning is true, then it cannot be rightly held that the subject comprehends the predicate for the connotation of the subject may not be larger than that of the predicate. Here we come to another defect of the comprehensive view. It suggests that intension like extension is quantitatively measurable, which is absurd. This is evident from the definition of a judgement as given by Hamilton. "We may articulately define a judgement or proposition to be the product of that act in which we pronounce that of two notions, thought as subject and predicate, the one

44. It may, however, be pointed out that any attempt at giving such a scheme which results into a multiplication of propositional schedules is not likely to serve any useful purpose and adds to the confusion in the clear reading of the meaning of the propositions.

45. **Concluding remarks:** No theory of predication by itself can be said to be of universal application and often more than one of the four main theories discussed above are required to account for the meaning of terms used in a proposition and the relation that holds between them. Thus Dr. Keynes remarks: "In dealing with the question whether propositions assert a relation between objects or between attributes or between objects and attributes, logicians have been apt to commit the fallacy of exclusiveness, selecting some one of the given alternatives, and treating the others as necessarily excluded thereby. It follows, however, from the double aspect of names—in extension and intension—that the different relations really involve one another, so that all of them are implied in any categorical proposition whose subject and predicate are both general names." Holding that different theories may be correct in different cases and from different points of view he observes: "We need not.....select the same mode of interpretation in each case. There would, for example, be nothing inconsistent in holding that to read the subject in denotation and the predicate in connotation is most correct from the psychological standpoint; to read both terms in connotation the most ultimate, in as much as connotation determines denotation and not *vice versa*; and to read both terms in denotation the most serviceable for purposes of logical manipulation.

have, accordingly, given an existential scheme of propositions based on a four-fold reading of categorical propositions in connotation and denotation. Thus an E and an I proposition may be taken as examples of existentially negative and affirmative interpretations respectively. According to the four main theories of Predication each one of them will yield four different existential propositions:

E: No S is P.

(1) 'There is no individual belonging to the class S and possessing the attributes connoted by P' (predicative theory);

(2) 'There is no individual common to the two classes S and P' (denotative theory);

(3) 'The attributes connoted by S and P respectively are never found conjoined' (connotative theory);

(4) 'There is no individual possessing the attributes connoted by S and belonging to the class P' (indicative theory);

I: Some S is P.

(1) 'There are individuals belonging to the class S and possessing the attributes connoted by P' (predicative theory);

(2) 'There are individuals common to the two classes S and P' (denotative theory);

(3) 'The attributes connoted by S and P respectively are sometimes found conjoined' (connotative theory);

(4) 'There are individuals possessing the attributes connoted by S and belonging to the class P' (indicative theory).

44. It may, however, be pointed out that any attempt at giving such a scheme which results into a multiplication of propositional schedules is not likely to serve any useful purpose and adds to the confusion in the clear reading of the meaning of the propositions.

45. **Concluding remarks:** No theory of predication by itself can be said to be of universal application and often more than one of the four main theories discussed above are required to account for the meaning of terms used in a proposition and the relation that holds between them. Thus Dr. Keynes remarks: "In dealing with the question whether propositions assert a relation between objects or between attributes or between objects and attributes, logicians have been apt to commit the fallacy of exclusiveness, selecting some one of the given alternatives, and treating the others as necessarily excluded thereby. It follows, however, from the double aspect of names—in extension and intension—that the different relations really involve one another, so that all of them are implied in any categorical proposition whose subject and predicate are both general names." Holding that different theories may be correct in different cases and from different points of view he observes: "We need not.....select the same mode of interpretation in each case. There would, for example, be nothing inconsistent in holding that to read the subject in denotation and the predicate in connotation is most correct from the psychological standpoint; to read both terms in connotation the most ultimate, in as much as connotation determines denotation and not *vice versa*; and to read both terms in denotation the most serviceable for purposes of logical manipulation.

To say, however, that a certain one of the four readings alone can be regarded as constituting the import of the proposition to the exclusion of the others cannot but be erroneous."

46. Import of Conditional Propositions: Uptill now we have been considering the import of categorical propositions. What about the hypothetical and the disjunctive propositions? Let us take them separately.

47. Hypothetical Propositions: We have seen in chap. IV, para. 15 that a hypothetical proposition makes a conditional statement. It expresses a relation of dependence, the consequent being conditioned by the antecedent. In the proposition, 'If A then C', nothing is said about the truth or falsity of either A or C taken separately. The proposition simply states the relation between A and C.

48. - Mention has already been made how the evolution of knowledge took place from the categorical to the hypothetical and thence to the disjunctive form of judgements (See chap. IV, para. 17). Latta and Macbeath believe that "the difference between a categorical and hypothetical proposition, while it is a real difference, is a difference of degree. The hypothetical proposition differs from the categorical in being more fully developed, more definite and explicit." It seems to be certain that the hypothetical proposition is a development of the categorical. The evolution of the categorical to the hypothetical proposition is due to the evolution of the copula. In the former, the copula or connection is implicit, in the latter it becomes to some extent explicit.

49. The difference between the categorical and the hypothetical form of propositions is based on the difference between the predication of individual objects and the predication of general types. When we want to predicate particular qualities of a subject without necessarily implying any dependence or connection between those qualities, our judgement generally takes the form of a categorical proposition. For example, if we say 'Ram is brave, intelligent, strong, honest, etc.' we do not thereby imply that Ram's bravery is dependent on his strength or that there is a connection between his honesty and intelligence. Any number of predicates can thus be asserted of a subject and there will be as many categorical propositions as there are predicates. On the other hand if an interdependence is implied between various qualities so that the presence or absence of one is conditioned by and dependent upon the presence or absence of another, the judgement is usually expressed in the form of a hypothetical proposition, e. g. 'If Ram is strong, he is brave.' From this it is evident that the hypothetical proposition is the expression of knowledge at a higher stage than that which appears in the categorical.

50. Another question in regard to the import of the hypothetical proposition is whether it is merely *assertoric* or is *modal*. It will be assertoric if the intention of making the proposition 'If A then C' is simply 'to deny the *actuality* of the conjunction of A true with C false,' it will be modal if the proposition is intended 'to declare this conjunction to be an *impossibility*.' On the assertoric interpretation the contradictory of 'If A then

'C' will be 'A is true but C is false', on the modal interpretation it will be 'If A is true C may be false'.

51. It should be admitted that our natural interpretation of the hypothetical propositions is ordinarily modal. There are, however, certain exceptions to this, e. g. in the proposition 'If the student's I met yesterday were not French, they were English', 'If Ren cannot dance, he can at any rate sing'. In the former case we know that one of the two propositions is true but do not know which, and the intention is simply to deny the *actuality* of the students being neither French nor English. In the latter the hypothetical form of expression is employed to emphatically declare the truth of the consequent having chosen an antecedent which is admittedly true. In both these cases the hypotheticals are to be interpreted assertorically.

52. But usually we do not consider it necessary to affirm the antecedent in order to deny a hypothetical and, as such, the hypotheticals should be generally interpreted modally.

53. **Disjunctive Propositions :** Except when we come across the disjunctive propositions in the forms like 'Every S, must be either P or Q'. 'Either X or Y is necessarily true,' they should be interpreted assertorically as this seems to be most in accordance with general usage. The propositions 'Every S is either P or Q', and 'Either X or Y is true' will assertorically have 'Some S is neither P nor Q' and 'Neither X nor Y is true' respectively as their contradictories; on the modal interpretation their contradictories will be 'An S need not be either P or Q' and 'Possibly neither X nor Y is true,' respectively. Obviously the assertoric interpretation seems to be more natural

in the case of the majority of disjunctive propositions, because we can adequately contradict the original propositions only by the former pair of propositions (contradictories on assertoric interpretation).

54. But the most important question in regard to the import of the disjunctive propositions is whether the alternatives in them should be necessarily mutually exclusive or not? There is a considerable difference of opinion among logicians on this question.

55. First of all let us see how do we use the alternants in ordinary language. In the proposition 'He is either a knave or a fool' we do not necessarily imply the denial of his being both. If a student has failed in the examination and we account for his failure by saying that 'He has either used bad text-books or he has been badly taught'. Here again our statement does not exclude the possibility of both the alternants being true.

56. Secondly, if clearness of thought and expression are the avowed ends of logical judgements, it should be admitted that a condensed form of expression is not conducive to the attainment of these ends and a disjunctive proposition is a more condensed form of expression on the exclusive than on the non-exclusive interpretation.

57. On the basis of the above considerations Dr. Keynes agrees with the view of Mill and Jevons and supports the non-exclusive interpretation of alternatives. Now let us consider the arguments in favour of the exclusive interpretation.

58. It is argued that any disjunctive expression of logical division or classification will be imperfect if the

disjunction is not exclusive. We have observed before (See chap. XVIII, para. 8 (1)) that for a logical division to be valid the sub-classes into which a genus is divided must be mutually exclusive. This fact seems to have weighed with Boanquet and others in favouring an exclusive interpretation of the disjunctive propositions.

59. In reply to the above view it may be urged that disjunctive propositions cannot be confined to the expression of logical division or classification. We do not suggest that there is no possibility of expressing an alternative statement in such a way that the alternants are formally exclusive. All that we contend is that the bare symbolic form 'A is either B or C' should not be interpreted to mean that 'if A is B it is not C' and 'if A is C it is not B' (exclusive interpretation).

60. But there is another argument in favour of the exclusive interpretation. It is held that to say that the alternants of a disjunctive proposition should not be interpreted to be mutually exclusive is to take too formal a view of the nature of a logical proposition. From the purely formal point of view the only completely valid disjunction is between contradictories on the dichotomous basis. In this sense the perfect disjunction will be of the nature of: 'A is B or not B' i. e. 'A horse is either a quadruped or it is not a quadruped'. But to make such a disjunction is useless.

61. In fact no disjunction is possible without some reference to the real (the term 'real' is to be interpreted in the sense given above in para. 16). It is not possible to ascertain whether the alternatives stated by the proposition are even partially exclusive by a.

mere reference to form—it is the actual *meaning* or *matter* of the proposition that shows it. This shows that every actual disjunction refers to a system of some sort, a universe of discourse, in which alone it has meaning. But as Latta and Macbeath remark, “if a disjunctive proposition is to be unambiguous, which it must be if it is a part of a reasoning which claims to be valid, the alternatives must be stated as really exclusive, e. g. if the proposition, ‘He is either a knave or a fool’ is intended to mean that he may possibly be both, it should be stated in the form ‘He is either a knave or a fool or both.’”

62. **Concluding remarks:** We agree with the views of Keynes that “The adoption of the exclusive interpretation would certainly render the manipulation of complex propositions much more complicated,” and that the disjunctive proposition, except when it expresses a logical division or scientific classification or when it is used in connection with the doctrine of probability, should be generally interpreted non-exclusively. Mellone has sought to introduce a distinction between propositions in which the alternants are not exclusive and which he calls *alternative* and those in which the alternants are exclusive and which are therefore *disjunctive*. But this is simply begging the question for it does not solve the problem under consideration.

63. We must repeat here the observation made in para. 45 in connection with the different theories of predication that neither the exclusive nor the non-exclusive interpretation can be universally valid. Propositions like ‘He will either survive or die,’ ‘The

accused should either pay a fine or go to jail', etc. are obviously best interpreted exclusively. But the non-exclusive interpretation seems to be of wider application and more in accordance with ordinary language and common usage.

Order of questions discussed in this chapter

- Q. 1. What is meant by the Import of Propositions and the Theories of Predication? Paras. 1, 2.
- Q. 2. To what does the proposition as a whole primarily refer—to names, to ideas or to real things? Paras. 2 to 22.
- Q. 3. Describe the Nominalist, Conceptualist and Realist views of the Import of Propositions. Which view do you consider most satisfactory? Paras. 2 to 22.
- Q. 4. What is meant by the Theories of Predication? State and explain the various theories. Paras. 23 to 45.
- Q. 5. What is meant by the Existential Import and Existential Scheme of the Propositions? Paras. 15, 16, 43, 44.
- Q. 6. What different views about the Import of the Hypothetical Propositions have been expressed? Paras. 47 to 52.

- Q. 7. What different views about the Paras. 53 to 63. Import of the Disjunctive Propositions have been expressed?
- Q. 8. How are the alternatives in a Paras. 54 to 61. disjunctive proposition to be interpreted?

CHAPTER XIX

FALLACIES OF DEDUCTIVE REASONING

1. **Meaning of Fallacy:** The term fallacy (Lat. *fallacia*, deceit) is used in ordinary speech in various senses. In the broadest sense it stands for any error-of-perception, imagination, conception, memory, interpretation or an improper use of language and rules of any sort. In a less restricted sense it may be applied to the violation of any logical rule whether of Definition, Division, Classification or Inference in general. In Logic, however, the term fallacy is used in a more precise sense. Thus according to Joseph, "A Fallacy is an argument which appears to be conclusive when it is not"; Latta and Macbeath define it "as a faulty or unsound inference"; again whereas according to Carveth Read, "A Fallacy is any failure to fulfil the conditions of proof", Welton defines it as, "a violation of logical principles disguised under a show of validity".

2. **Paralogism and Sophism:** It is not proper to use Paralogism and Sophism in the general sense of Fallacy. The former two terms have their special connotations. "If we neglect or mistake the conditions

are not, due to some ambiguity or looseness in the verbal expression. The former class was termed fallacies *in dictione* and the latter fallacies *extra dictionem* by Aristotle's successors.

5. Under the head of fallacies *in dictione* the following six fallacies are included : (i) Equivocation (ii) Amphiboly, (iii) Composition, (iv) Division, (v) Accent and (vi) Figure of Speech.

6. There are seven fallacies *extra dictionem* :

(i) Accident, (ii) Secundum Quid, (iii) Ignoratio Elenchi or Irrelevant conclusion, (iv) Petitio Principii or begging the question, (v) Consequent or Nonsequitor, (vi) False cause or Non Causa pro Causa and (vii) Many Questions.

7 The former class of fallacies has its source in the ambiguity of language, while the latter class arises from some confusion or mistake in thought.

8. Similarly, Mill and Whately have given their own classifications of Fallacies. Perhaps the most satisfactory classification has been given by Mr. Stock. According to him, " Whenever in the course of our reasoning we are involved in error, either the conclusion follows from the premises or it does not. If it does not the fault must be in the process of reasoning and we have then what is called a *logical* fallacy. If, on the other hand, the conclusion does follow from the premises, the fault must be in the premises themselves, and we then have what is called a *material* fallacy. Sometimes, however, the conclusion will appear to follow from the

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- (c) *A dicto secundum ad dictum simpliciter*
 - (d) *Consequent or Nonsequitor*
 - (e) *False Cause or Non Causa pro Causa*
 - (f) *Irrelevant Conclusion or Ignoratio Elenchi*
 - (g) *Petitio Principii or begging the question*
 - (h) *Complex Question or Many Questions*
- (3) **Semi-logical Fallacies or Fallacies due to language :**
- (a) *Equivocation*
 - (b) *Amphiboly*
 - (c) *Composition*
 - (d) *Division*
 - (e) *Accent*
 - (f) *Figure of Speech*

11. The formal or logical fallacies resulting from the violation of the rules of Definition, Division, Immediate Inference, Pure and Mixed Syllogisms, Dilemmas and Aristotelian and Goelenian Sorites have been already discussed in their respective chapters. Here we shall consider Material and Semi-logical fallacies only.

12. Material Fallacies :

(a) **Accident :** "The fallacy of Accident consists in arguing that what is true of the accidental qualities or relations of a thing is true of the thing itself."

—Latta and Macbeath.

premises until the meaning of the terms is examined, when it will be found that the appearance is deceptive owing to some ambiguity in the language. Such fallacies as these are, strictly speaking, non-logical, since the meaning of words is extraneous to the science which deals with thought. But they are called *semi-logical*."

9. Thus we may classify fallacies in the following way:

- (1) **Logical or Formal :** Due to violation of some rules of Logic.
- (2) **Material :** Due to confusion or mistake in thought.
- (3) **Semi-logical :** Due to the ambiguity of language; they may be better called **fallacies of language.**

10. Each one of them may be further sub-divided as follows:

- (1) **Formal or Logical Fallacies :**
 - (a) *Due to the violation of the rules of Definition*
 - (b) *Due to the violation of the rules of Division*
 - (c) *Due to the violation of the rules of Immediate Inference*
 - (d) *Due to the violation of the rules of Mediate Inference*
- (2) **Material Fallacies :**
 - (a) *Accident*
 - (b) *A dicto simpliciter ad dictum secundum quid*

- (c) *A dicto secundum ad dictum simpliciter*
 - (d) *Consequent or Nonsequitor*
 - (e) *False Cause or Non Causa pro Causa*
 - (f) *Irrelevant Conclusion or Ignoratio Elenchi*
 - (g) *Petitio Principii or begging the question*
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- (3) **Semi-logical Fallacies or Fallacies due to language:**
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(a) **Accident :** "The fallacy of Accident consists in arguing that what is true of the accidental qualities or relations of a thing is true of the thing itself."

—Latta and Macbeath.

Joseph explains it in the following way: "A subject has diverse accidental predicates, i. e. predicates indicating attributes which are not commensurate with it nor essential to it; what is predicable of the subject may or may not be predicable of these accidents, and vice versa."

Examples :

(i) 'This dog is yours; this dog is a father: therefore he is your father.' —Aristotle.

("...the dog is a father, and is yours; but it does not follow that the father is yours—that he is yours as a father, as he is yours as a dog." —Joseph)

(ii) "A servant who was roasting a crane for his master was prevailed upon by his sweet-heart to cut off a leg for her to eat. When the bird came upon table at supper, the master desired to know what was become of the other leg. The man answered that cranes had never more than one leg. The master, very angry but determined to strike his servant dumb before he punished him, took him next morning into the fields where they saw cranes standing each on one leg as cranes do when they are sleeping. The servant turned triumphantly to his master, on which the latter shouted and the birds put down their other legs and flew away. 'Ah, Sir' said the servant, 'you did not shout to the crane at supper yesterday, if you had done so, he would then have set down his other leg, as these here did; but if, as they, he had flown away too, by that means you might have lost your supper'." (Boccacio, *Decameron*)

(Here the argument of the servant assumes what a dead crane can do, a living one can also do.)

(iii) Welton maintains that under this head should also come a form of fallacy classed by De Morgan under the head of equivocation :

"To call you an animal is to speak truth, to call you an ass is to call you an animal, therefore, to call you an ass is to speak truth."

(Here an unessential resemblance has been confounded with an essential one.)

(iv) "Is Plato different from Socrates?" "Yes," "Is Socrates a man?" "Yes." "Then Plato is different from man."

(Here an unessential difference has been confounded with an essential one; Plato is different from Socrates only in accidental attributes and not in his essential attributes).

(b) **A dicto simpliciter ad dictum secundum quid :**

This fallacy commonly called the fallacy of *secundum quid*, consists of arguing from a simple statement to a statement under a certain condition. In this form "we infer that what is true normally or as a general rule, is true absolutely and in every particular case."—Latta and Macbeath. This is one of the subtlest and commonest sources of error.

Examples :

(i) "Experiments for the purpose of ascertaining the functions of the various organs in animals cause pain and as we are not warranted in causing a pain to any sentient creature, such experiments are wrong." —Creighton.

(Here what is true in general has been mistakenly applied to a special case ignoring the particular condi-

tions present in the latter, viz. the pain caused to animals in experimenting upon them is ultimately for the good of the people and therefore is not a wrong).

(ii) Alcohol is a poison, therefore, a patient should not take alcohol even if advised by his doctor.

(iii) All who speak in favour of wickedness are themselves wicked. All lawyers are therefore to be condemned for they defend criminals.

(iv) Doctors believe that milk is a wholesome and perfect food, therefore there is nothing wrong in giving milk to cholera patients.

(v) It is right to relieve the suffering of others; therefore we ought to give money to beggars.

(c) **A dicto secundum quid ad dictum simpliciter :**
This is the converse of the above fallacy and consists in applying in general what is true in a particular case. Therefore, we commit this fallacy when we reason that a principle which is true under some special circumstances or qualifications will be true absolutely, without any restrictions.

Examples:

(i) Because it is injurious to take exercise when one is suffering from some organic trouble, therefore, no one should take exercise.

(To take exercise is bad and injurious only under the special circumstance of one's suffering from some organic trouble. Hence it cannot be made a general rule that no one should take exercise.)

(ii) I will have no doctors because I know that all my friends who died last year had doctors.

(iii) It is no good for me to keep temperate when the doctors have been able to persuade me to take brandy when I was ill.

(iv) When a surgeon rightfully uses his knife everyday in performing operations upon the diseased limbs, you can never charge him for having used the knife on the body of a man.

15. (d) Consequent or Nonsequitor : This fallacy consists in supposing that a condition and its consequent are convertible; that we can argue from the consequent to the condition, no less than vice versa. Thus Aristotle intended by it to mean simply the formal error of inferring the truth of the antecedent from that of the consequent, or the falsity of the consequent from that of the antecedent. Joseph points out that "Such fallacies are committed whenever a theory is assumed to be true for no better reason than that the facts exist, which should exist if it were true—i. e. whenever refutation of an argument advanced in support of a theory is supposed by itself to be fatal to the theory." Similarly, this fallacy is also committed when the conclusion does not really follow from the premises by which it is supposed to be supported.

Examples :

(i) If the weather is foggy the train is late ; the train is late, therefore the weather is foggy.

(Here the antecedent and the consequent have been treated as convertible. It will be seen that according to the rules of hypothetical syllogism it involves the fallacy of affirming the consequent.)

(ii) If the weather is foggy the train is late, the weather is not foggy, therefore the train is not late.

(Here again the antecedent and consequent have been supposed to be convertible. Formally, the fallacy is that of denying the antecedent.)

(iii) "Every one desires happiness, and virtuous people are happy; therefore every one desires to be virtuous."
—Creighton.

(There is no connection between the premises and the conclusion here, although we are liable to be deceived by the presence of certain common words.)

(iv) The argument of the believers in the Copernican theory in justification of the latter also commits this fallacy: "If our theory is right, it should be able to explain the position of planets and stars at any particular time, and the correct time of the eclipses of the sun and the moon. What follows from the hypothesis granted as true exactly coincides with the facts. Our theory therefore is true."

(Here verification has been mistaken for proof. We cannot argue that because a conclusion is true therefore an argument on which it is made to depend is also true.)

16. (e) False Cause or non causa pro causa :

"This fallacy is committed when we try to disprove a proposition on the ground that some obviously false consequence results from it, while in fact the false consequence follows not from it but from something else."

—Latta and Macbeath.

Examples :

(i) "It is ridiculous to suppose that the world can be flat; for a flat world would be infinite and an infinite world could not be circumnavigated, as this has been.

Here the supposition inconsistent with the fact of the circumnavigation of the world is not that the world is flat, but that it is infinite; it might be flat and still circumnavigable, if it were finite; the thesis of its flatness is therefore unfairly discredited.” —Joseph.

(ii) “The animals and men native to countries of inclement climate where the conditions of life are severe, are usually robust. The hardships they are forced to undergo in youth are the cause of this hardiness”—Whately.

(Here the result is confounded with the reason. The result of surviving the hardships has for its reason the hardiness of the people and not vice versa).

(iii) It is no surprise to know that I met with an accident on the road because a cat had crossed my way before the accident occurred.

(The reason of the accident is not true here.)

It should be noted that this fallacy is usually used to indicate *Post hoc, ergo propter hoc*, i. e. the fallacy of supposing that one event is due to another, merely because it occurred after it. Most superstitions are instances of this fallacy.

17. (f) Ignoratio Elenchi or Irrelevant Conclusion : This literally means ‘ignorance of confutation’ and is used for arguing beside the mark, for proving the wrong point, for establishing a proposition which does not disprove the original assertion of the adversary. “...the business of any one undertaking to confute a statement is to prove the contradictory and if I prove anything else, I show that I do not know what confutation requires.” —Joseph

Examples :

(i) Thus the fallacy of *ignoratio elenchi* is committed when the following argument is advanced against the study of Sanskrit: "throughout his after career, a boy in nine cases out of ten, applies his Sanskrit to no practical purposes." The advocates of the study of Sanskrit do not claim that Sanskrit is of any practical use in life. What they do urge is that the study of Sanskrit furnishes an intellectual culture grounded in ideal Indian traditions. A true *elenchus* (refutation) should be addressed to disprove the latter assertion, but this the argument altogether ignores.

18. If in place of confuting or disproving an allegation, something is proved against the person who makes the allegation there is a case of *argumentum ad hominem*. It is a fallacy to prove something about the person who puts forward a doctrine or proposal rather than about the merits of the doctrine or proposal. "In order to confuse an opponent, and discredit him with the audience, one may show that his character is bad, or that the views which he is now maintaining are inconsistent with his former professions and practice. Or, on the defensive side, the character of the advocate of the point at issue may be praised". Creighton. For example :

(ii) "Such and such a system of education has produced several distinguished men, therefore it does not admit of any improvement." —Fowler.

(iii) "He is already rich and powerful, so that he cannot be guilty of usury and extortion".

—Creighton.

(iv) You have no right to accuse me of bribery for you yourself have bribed in the past.

(Here the argument that the person who has accused is himself guilty of the same accusation does not free the person accused of his guilt. This form is also called the *tu quoque* (you're another).

19. Another form of the fallacy of *Ignoratio Elenchi* is the *argumentum ad populum* which consists in appealing to people's passions and prejudices rather than to their intelligence. Usually recourse is taken to addressing an argument calculated to excite the feelings of approval or anger in place of an unbiassed discussion addressed to the intellect. For example:

(v) An orator condemning the grant of equal rights to women asks: "Who is here that would see his own sisters and wife enjoy liberty to do what they choose—go about anywhere they like, mix, move and be free with any one they take a fancy for?"

20 A special case of the above form of fallacy is *argumentum ad misericordiam* in which an appeal is made to the pity or sympathy which people may be made to feel for a person accused of crime. Frequently we come across "arguments addressed to show that a man is unfortunate and deserves pity, when it ought to be shown that he is innocent or has the law on his side."

—Joseph.

For example:

(vi) A culprit at the last moment may appeal to the Judge by entreaties: "Have mercy on me, I am a very

poor man, I have to support four children and my wife. Who will look after them if I am sentenced to imprisonment?"

21. Another form of *Ignoratio Elenchi* is the *argumentum ad ignorantiam*. This consists "in trusting that the ignorance of the hearer will lead to the acceptance as proved of statements which are by no means proved" – Welton. It is not uncommon to meet with such cases when the ignorance of the audience or the opponent is turned to one's advantage by proving something like the point professed to be established trusting that the difference between the two points will not be noticed owing to ignorance.

For example :

(vii) Frequently faced with a question from some one younger than ourselves we remark : "you will know it better when you grow older," the questioner having been told something beside the point.

(viii) "Is it possible to communicate with the spirits?" "Yes". "Can you prove that it is so?" "Oh ! it doesn't require any proof. You would not put me this question if you had yourself communicated with the spirits."

22. Yet another form of irrelevant conclusion is the *argumentum ad verecundiam*. This consists in appealing to authority instead of establishing a contention on its own merits. An appeal to the reverence which most people feel for a great name or for a long-established usage is most frequently resorted to as an easy expedient to gain one's point.

For example :

(ix) All controls should be abolished for Mahatma Gandhi was openly in favour of decontrols.

(x) How do you say that *Burqa* should be removed when our fore-fathers since generations have been keeping their ladies under the purda-system?

23. (g) *Petitio Principii* or *Begging the Question* :

This fallacy is committed when a proposition which requires proof is assumed without proof. Many a time, "we either assume the proposition we are proposing to prove, or prove it by premises which can only be proved by means of the proposition itself."

—Latta and Macbeath.

24. In a wider sense the fallacy of *petitio principii* is used to denote the assumption in some form of the very proposition to be proved, as a premise from which to deduce it. Thus according to Aristotle, this fallacy may be committed in any of the five ways :

(1) "By assuming, when the conclusion is particular, a universal which involves it ;

(2) By assuming, the very proposition to be proved ;

(3) By assuming, when the conclusion is universal, a particular involved in it ;

(4) By assuming piece by piece the proposition to be proved ;

(5) By assuming a proposition which necessarily implicates the proposition to be proved."

—Welton.

Examples :

25. (i) All legislation which interferes with the right of free contract is bad ; therefore this legislation seeking to regulate the hours of labour in the coal mines is bad.

(Here the universal proposition 'All legislation which interferes with the right to free contract is bad' whose truth is assumed, already involves the conclusion which is particular.)

26. (ii) 'Opium induces sleep because it has a soporific quality.'

(This is the *hysteron proteron* form of *petitio principii*. Here there is a direct assumption of the conclusion through the use of synonyms ; for to have soporific quality is the same as to be able to induce sleep. The reason we give for the conclusion is just a reassertion of a proposition to be proved).

27. (iii) 'I should not do this act because it is wrong.' 'But how do you know that the act is wrong?' 'Why, because I know that I should not do it.'

—Creighton.

(This form of *petitio principii* is called *circulus in probando* by Creighton and *circulus in demonstrando* by Welton. In other words it is the form of *reasoning in a circle*. Here each of the two propositions is used in turn to prove the truth of the other).

28. (iv) About the third way in which *petitio principii* can be committed, viz. by assuming the particular to prove the universal which involves it, Whately writes :

"Aristotle himself seems to be guilty of this when he maintains that slavery is in accord with natural law, on the ground that the neighbouring barbarians, being inferior in intellect, are the born bondsmen of the Greeks."

(Here the generalisation that 'slavery is in accord with natural law' is based on simple enumeration. The particular case of the neighbouring barbarians being born bondsmen of the Greeks due to their being inferior in intellect, which is assumed, is evidently involved in the universal which it seeks to prove.)

29. (v) Another way in which this fallacy is committed is given by Walton by quoting Aristotle's example, "when, in trying to show, that the healing art is knowledge of what is wholesome and unwholesome, it is successively assumed to be the knowledge of each."

(This form is only a variety of the above way and results by assuming piece by piece the proposition to be proved. First we may assume that healing art is the knowledge of what is wholesome; next we may assume that it is the knowledge of what is unwholesome and then assert that healing art is knowledge of what is wholesome and unwholesome).

30. (vi) 'Everywhere the light of life and truth was lacking, for darkness covered the earth, and gross darkness the people.'

(Here the assumption of the latter proposition necessarily implicates the former. There is no passage of thought whatsoever, it is the same judgement expressed in different words.)

31. (h) Complex Question Or Many Questions :

This is an interrogative form of *Petitio*. "This consists in putting questions in such a form that any single answer involves more than one admission. If one admission be true and another false, and the respondent is pressed for a single answer, he is exposed to the risk of confutation whatever answer he makes"—Joseph. Students are often found trying this form to befool or deceive others. A question is asked with an implication, the question being so framed that any answer to it must grant the truth of the implication.

Examples :

(i) 'Have you given up beating your father?'—Yes or no.

(Here the question is so framed that if the answer is 'yes' it means that the person answering it admits the practice of beating his father which is implied in the language of the question.)

(ii) Do you not think that the persecutions carried out in the communist countries are frequent and criminal?—Yes or no.

(Here the person replying may agree with the first part that the persecutions are frequent but he may not agree with the latter part that they are criminal because they are aimed against the anti-social and reactionary interests. To ask for a single answer in 'yes' or 'no' is to put the person replying in an embarrassing position. If he says 'yes' he admits something in which he does not believe—that the persecutions are criminal. If he says 'no' he denies something which he knows to be true—that the persecutions are frequent.)

(iii) What is the explanation of communication with the spirits?

(Here even though no unfair duress is employed, the question presupposes the fact that it is possible to communicate with the spirits. The person replying might therefore admit without considering what, if it had been explicitly submitted to his consideration, he might have doubted or denied).

32. Semi-logical Fallacies or Fallacies due to language :

(a) **Equivocation** : This means an ambiguity in the terms used. It is not uncommon to use the major or the minor or the middle term in a syllogism ambiguously so that in fact there are four terms instead of three.

Examples :

(i) Every one ought to contribute to the support of the unfortunate, therefore, there is no harm in a law which compels him to do so.

(Here moral obligation has been confused with legal obligation ; hence the ambiguity).

(ii) Partisans are not to be trusted, Democrats are partisans ; therefore Democrats are not to be trusted.

(Here in the first premise 'partisans' means persons biassed in favour of some cause ; in the second premise it means members of a political party).

The above form of equivocation, generally another name for the fallacy of four terms, has been called by Creighton the fallacy of *Ambiguous and Shifting terms*.
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33. (b) Amphiboly: It means an ambiguity due to the structure of a sentence. If a proposition is liable to be interpreted in more than one way due to the ambiguity in a phrase through change of construction or structure, this fallacy is committed. Unlike equivocation, here, "the words are used univocally throughout, but the meaning of the phrase as a whole changes through change of the construction in which the same words are taken" —Joseph.

Examples:

(i) 'The Duke yet lives that Henry shall depose'.

(This is capable of two interpretations. 'The Duke who will depose Henry is yet alive', and 'The Duke whom Henry will depose is yet alive'. There is no ambiguity in any word but the sentence read as a whole is liable to be interpreted in two ways owing to its structure).

(ii) 'A piano for sale by a lady about to cross the channel in an oak case with carved legs'.

(iii) 'I will wear no clothes to distinguish myself from my christian brethren'—statement of a clergyman.

(iv) "How do you feel?" "With my hands".

34. (c) Composition: This fallacy is committed "when we affirm something to be true of a whole, which holds true only of one or more of its parts when taken separately or *distributively*"—Creighton. In the words of Latta and

Macbeath, "the fallacy of composition consists in inferring from the distributive use of a term to its collective use."

Examples :

(i) No one member of a jury is very wise and fairminded ; therefore justice is forbidden in trial by jury.

(Here each individual juror may not be capable of giving justice but this does not mean that the jury as a whole is incapable of doing justice).

(ii) " Every incident in this story is very natural and probable ; therefore the story itself is natural and probable. " —Jevons.

(iii) No alliance of nations can beat America, because no single country is as powerful as she.

(iv) I can afford to purchase a fountain pen, a bicycle, a piano. Therefore I can purchase all.

(v) Mill's argument in support of utilitarianism is a famous instance of the fallacy of composition: "No reason can be given why the general happiness is desirable except that each person, as far as he believes it to be attainable, desires his own happiness. (This, however, being a fact, we have not only all the proof which the case admits of, but all which it is possible to require, that happiness is a good: that each person's happiness is a good to that person, and that general happiness, therefore, a good to the aggregate of all persons)."

(The portion within brackets contains the fallacy of Composition).

(vi) Every member of our team is a star player; therefore our team is a star-team.

35. (d) Division : The fallacies of composition and Division are the converse one of the other. Just as in the fallacy of composition we infer that what is distributively true is also collectively true, in the fallacy of Division we infer that what is collectively true will also be distributively true. Thus this fallacy consists in arguing from a term used collectively as if it had been used distributively.

Examples :

(i) The knowledge of English language is necessary for a nation. Therefore, every member of the nation should study English.

(The argument is obviously fallacious because what is necessary for the nation as a whole need not be necessary for every member of the nation individually).

(ii) A miser argues: "I cannot subscribe to the Gandhi Memorial Fund and to the Famine Relief Fund and to the Refugee Rehabilitation Fund. Therefore I cannot subscribe to any one of these funds".

(iii) Britishers are an imperial people; Mr. Brown is a Briton; therefore Mr. Brown should be an imperialist.

(iv) All the Russian soldiers put the Germans to flight. Therefore every Russian soldier could rout the Germans.

(v) All the angles of a triangle are equal to two right angles. Therefore angle A is equal to two right angles.

(vi) "Five is one number ; three and two are five ; therefore three and two are one number". —Ray

36. (e) **Accent** : This fallacy meant to Aristotle a mistaken inference owing to the ambiguity of a word which has different meanings when differently accented. But since this is not possible in modern languages, this term is now used to describe the fallacy arising from an emphasis on a wrong word in a sentence, which results into a change of its meaning. Creighton regards it as a rhetorical rather than a logical fallacy.

Example :

(i) The commandment "Thou shalt (not) bear false witness against thy (neighbour)" will mean one thing if accent is placed on 'not', whereas it will give an altogether different meaning if the accent is placed on the last word—'neighbour'. In the latter case the commandment will imply that we are at liberty to bear false witness against other persons.

37. (f) **Figure of Speech or Figura Dictionis** : This fallacy has also been called the *Fallacy of Paronymous Terms*. "The fallacy of *Figure of speech* is committed when we regard the same grammatical form (e. g. the same inflection or prefix) as having the same force in every case in which it occurs, as would happen if one said that *important* is a negative notion because *imperturbable* or *impertinent* is."—Latta and Macbeath. To Aristotle it meant a sophism which might arise from supposing words similar in form to be similar in meaning.

Examples :

(i) Welton quotes the following argument from Mill's

'Utilitarianism' as an instance of this fallacy "The only proof capable of being given that an object is visible, is that people actually see it. The only proof that a sound is audible, is that people hear it.....In like manner, I apprehend, the sole evidence it is possible to produce that anything is desirable, is that people do actually desire it".

(Here the likeness of form of 'desirable' with 'visible' and 'audible' led Mill to suppose that these words are similar in meaning. Whereas 'visible' is that which can be seen and 'audible' is that which can be heard, 'desirable' is not that which can be desired but that which *ought* to be desired).

(ii) All creditors are unhappy. Ram is a man of credit. Therefore Ram must be unhappy.

INDIAN LOGIC

CHAPTER XX

ANUMĀNA (INFERENCE)

1. **Definition and Nature of Anumāna :** The Sanskrit word *anumāna* is generally translated by the word 'inference'. The two terms should not, however, be considered interchangeable. We shall presently see the important distinctions between the two.

2. *Anumāna* (*anu*-after, *māna*-knowledge) literally means knowledge which follows other knowledge. The Nyāya system defines *anumāna* as the knowledge of an object, not by direct observation, but by means of the knowledge of a sign (*liṅga*) and that of its universal relation (*vyāpti*) with the inferred object. Thus in *anumāna* the previous knowledge of *liṅga* (mark) as having a universal relation with the *sādhya* (major term) and of being present in the *pakṣa* (minor term) leads to the knowledge of the relation between the *sādhya* and the *pakṣa*. An example will make it clear :

3. Suppose some body argues : "The hill is fiery, because it smokes, and whatever smokes is fiery". Here the knowledge that the hill is fiery has been inferred from the knowledge of the presence of smoke on the hill and the universal relation between smoke and fire. Accordingly, the definition of *anumāna* as given by Dr. B. N. Seal is : "*Anumāna* (inference) is the process of ascertaining, not by perception or direct observation, but through the instrumentality or medium of a mark, that a thing possesses a certain character."

4. It will be clear from what has been said above that according to the Indian schools of philosophy *anumāna* as a method of knowledge proceeds from the previous knowledge of an invariable concomitance (*vyāpti*) between the middle and the major terms, coupled with the knowledge of the minor term as being characterized by the middle. This brings out an important distinction between the scope and conception of *anumāna* and inference in western logic. According to the definition given above *anumāna* can include only the mediate inferences of western logic. Immediate Inferences of the western system which do not involve the knowledge of *vyāpti* fall outside the scope of *anumāna*. Another distinction between *anumāna* of Indian logic and inference in western logic is that whereas the latter generally identifies inference with mediate knowledge many Indian systems like the *Advait Vedānt* and *Mīmāṃsā* recognise other forms of mediate knowledge like *śabda* (authority) *upmāna* (comparison) and *arthāpatti* (postulation) besides *anumāna*.

5. Constituents of Anumāna : From the foregoing remarks it follows that there must not be more than three terms and less than three propositions in any *anumāna*. The act of *anumāna* consists of three distinct stages :

(i) The knowledge of *līnga* or mark in relation to the *pakṣa* (minor term). This is usually a perceptual judgement relating the *līnga* (middle term) with *pakṣa* (minor term) of *anumāna*. This first step is called *lingadarśana*, e. g. ' The hill is smoky. ' This corresponds to the minor premise of the western syllogism.

(ii) The knowledge of *vyāpti* or a universal relation between the *līṅga* and the *sādhya* (major term). This is a memory-judgement being the result of our previous experience of the *līṅga* being invariably connected with the *sādhya*. This second step is called *vyāptismaraṇa*, e. g. 'All smoky objects are fiery.' This corresponds to the major premise of a syllogism.

(iii) The inferential cognition or knowledge of a relation between the *pakṣa* and the *sādhya* or the minor and the major terms. This follows from the first two propositions. It is called *anumati*, e. g. 'The hill is fiery'. This corresponds to the conclusion of the syllogism.

6. Corresponding to the major, minor and middle terms of the western syllogism, *anumāna* contains three terms, viz : *sādhya*, *pakṣa* and *līṅga* (also called *hetu* or *sādhana*).

7. The *pakṣa* is the subject of *anumāna*. It may be an individual or a class of individuals. The *sādhya* is the object of *anumāna*. The *hetu* or *līṅga* is the ground or reason of our knowledge of the *sādhya* in relation to the *pakṣa*.

8. *Sādhya* : The different systems of Indian philosophy hold different views on the exact nature of the *sādhya*. What is inferred is (i) the unperceived character of the *pakṣa* according to Advaita Vedānta ; (ii) the hill as possessed of fire according to Buddhism ; (iii) the *pakṣa* as related to the *sādhya* according to *Mīmāṃsa* and (iv) either the *pakṣa* as related to the *sādhya* or the *sādhya* as related to the *pakṣa* or the *hetu* taken as a particular individual and related to the *sādhya*, according to Nyāya.

9. We are following the Nyāya school in our treatment of *anumāna* because the treatises of the Naiyāyikas influenced the thought and language of other writers to a considerable extent and they accepted the Nyāya views in general with slight deviations. According to the Naiyāyikas the object of inference may be different in different cases. Thus when we perceive smoke in a hill, the object of *anumāna* is either, 'the hill as related to fire' or 'fire as related to the hill; but when the site of the smoke cannot be perceived, the object of *anumāna* is that the perceived individual smoke is related to fire (vide Nyāyavārttikatātparyāṭikā quoted by S. C. Chatterjee).

10. *Pakṣa*: The *pakṣa* or the minor term is "that individual or class about which we want to establish something or predicate an attribute which is suspected but not definitely known to be present in it". (vide Tarkasamgraha quoted by S. C. Chatterjee). A *sapakṣa* is a homogeneous instance which is definitely known or proved to be related to the inferable character, e. g. the 'hearth' as marked by the presence of 'fire'. On the other hand a *vipakṣa* is a heterogeneous instance which is positively known to be characterized by the absence of the inferable character, e. g. 'water' as marked by the absence of 'fire'.

11. *Hetu* or *liṅga* or *sādhana*: The *liṅga* (mark or sign) is so called because it indicates that which we do not perceive, e. g. fire on the hill. It is also called *hetu* or *sādhana* because it is the reason or ground of our knowledge of the *sādhya* in relation to the *pakṣa*. As in the case of the middle term in the syllogism, the *hetu* must occur at least twice in an *anumāna*, once in relation to the *pakṣa* and then in relation to the *sādhya*. The inferential cogni-

tion (*anumati*) of the relation between the *pakṣa* and the *sādhya* is through their common relation to *hetu*.

12. Characteristics of the Hetu : According to the Nyāya sūtravṛtti and Nyāyamañjarī there are five characteristics of the *hetu* :

(i) *Pakṣadharmatā* : The *hetu* must be related to the *pakṣa* (The hill is smoky). It must be a character of the *pakṣa*.

(ii) *Sapakṣasattva* : The *hetu* must be present in all homogeneous instances in which the *sādhya* exists or it should be distributively related to the *sādhya* (All smoky objects are fiery).

(iii) *Vipakṣāsattva* : The *hetu* must be absent in all heterogeneous instances in which the *sādhya* is absent (No non-fiery objects are smoky).

(iv) *Abādhita viśayatva* : The *hetu* must not aim at establishing contradictory objects as squareness of a circle or the coolness of fire.

(v) *Asatpratipakṣatva* : The *hetu* must not itself be validly contradicted by some other ground or *hetu*.

13. Grounds of Anumāna : There are two grounds of *anumān* or inference, one logical, another psychological. The logical ground of *anumāna* is *vyāpti* or universal relation between the *hetu* and the *sādhya*, whereas psychological ground is *pakṣatā* or the presence of *pakṣa*. It is obvious that *anumāna* depends as much upon the logical as upon the psychological ground. "While the validity of inference depends on *vyāpti*, its possibility depends on

pakṣata Inference takes place when there is a *pakṣa* or subject of inference, it becomes valid when based on *vyāpti* or a universal relation between the middle and the major term. Hence while *vyāpti* is the logical ground of inference, *pakṣatā* is its psychological ground or condition" —S. C. Chatterjee.

14. The logical ground: *Vyāpti*: We have seen that our knowledge of the fire on the hill is dependent upon our perception of smoke on the hill and the cognition that there is a relation of invariable concomitance between the smoke and fire, i. e. wherever there is smoke, there is fire. This relation of invariable concomitance between the *hetu* and the *sādhya* is technically called *vyāpti*. "Each *vyāpti* relates the two elements of a *vyāpaka* or the pervader and the *vyāpya* or the pervaded. *Anumāna* or inference derives a conclusion from the ascertained fact of the subject possessing a property which is pervaded or constantly attended by another property. We ascertain that the mountain is on fire from the fact that the mountain has smoke, and smoke is universally attended by fire"

—S. Radhakrishnan.

15. The meaning of *Vyāpti*: Literally, the term *vyāpti* means the state of pervasion or permeation. Thus it implies two facts: (i) That which pervades (*vyāpaka*) and (ii) that which is pervaded (*vyāpya*). In our example smoke is *vyāpak* and fire is *vyāpya*. "A fact is said to pervade another when it always accompanies the other. Contrariwise, a fact is said to be pervaded by another when it is always accompanied by the other"

—S. C. Chatterjee.

16. It will be seen that the relation between the smoke and fire is unsymmetrical, i. e. while all smoky objects are fiery, all fiery objects are not smoky, e. g. a red-hot iron ball. Thus smoke and fire are not coextensive. On the other hand if two terms are co-extensive the relation between them is symmetrical, i. e. each one is followed by the other invariably. Therefore *vyāpti* is of two kinds :

(i) *Asamavyāpti* or *viṣamavyāpti* : It is a *vyāpti* between terms of unequal denotation such as smoke and fire. It is a relation of non-equipollent concomitance between two terms so that we can infer only one from the other but not *vice versa*. We can infer fire from smoke but not smoke from fire.

(ii) *Samavyāpti* : It is a *vyāpti* between terms of equal denotation such as between knowable and describable. It is a relation of equipollent concomitance between two terms so that we can infer each from the other. Thus whatever is knowable is describable and whatever is describable is knowable.

It will be seen that in the case of *asamavyāpti* the universal proposition cannot be simply converted. It is converted *per accidens*, e. g. 'All smoky objects are fiery' will be converted to 'Some fiery objects are smoky'. But in the case of *samavyāpti* the universal proposition can be simply converted, e. g. 'Whatever is produced is non-eternal' will be converted to 'Whatever is non-eternal is produced'.

17. From the above discussion it also follows that whereas *asamavyāpti* is a universal proposition which distri-

butes only its subject, *samavyāpti* is a universal proposition which distributes both its subject and predicate. Ordinarily, therefore, these two will correspond to the universal affirmative and the universal negative propositions of the western logic, respectively, 'except when we have such universal affirmative propositions which distribute both their subject and predicate, e. g. 'whatever is knowable is describable', 'man is rational animal', etc. All analytic definitions are examples of *samavyāpti*.

18 From a different view-point *vyāpti* is divided under two different heads :

(i) *Anvaya-vyāpti* : Affirmatively *vyāpti* is expressed in the form of an A (universal affirmative) proposition, e. g. 'All smoky objects are fiery'. This form is known as *anvaya-vyāpti*. Here the *hetu* is *vyāpya* or subject and the *sādhya* is *vyāpaka* or predicate.

(ii) *Vyatireka-vyāpti* : Negatively, *vyāpti* is expressed in the form of an E (universal negative) proposition, e. g. 'No non-fiery objects are smoky'. This form is known as *vyatireka-vyāpti*. Here the contradictory of the original *vyāpak* or predicate becomes *vyāpya* or subject and the contradictory of the original *vyāpya* or subject becomes the *vyāpaka* or predicate (whatever is not-fiery is not-smoky).

19. This shows that *vyāpti* which is the logical ground of *anumāna* can be either affirmative or negative. Negatively *vyāpti* can be defined as the non-existence of the *hetu* in all the places where the *sādhya* does not exist (*vyāptih sādhyaavadanyasminnasambandha*, etc., *Bhāṣa-pariccheda*).

20. The minimum condition for *anumāna* or inference is *vyāpti* whether *sama* or *asama* between the *hetu* and the *sādhya*. We have seen in case of the western syllogism that one at least of the propositions must be universal (See chap. VII, para. 3). The above condition for *anumāna* satisfies this requirement. Usually *vyāpti* means a relation of coexistence (*sāhacarya*) between the *hetu* and the *sādhya*, e. g. wherever there is smoke there is fire (*yatra dhūmas tatrāgniriti sāhacaryaniyamo vyāptih*, Tarkasaṃgraha). But every case of coexistence cannot be a case of *vyāpti*, e. g. many times fire coexists with smoke, but still there is no universal relation between fire and smoke; we know there can be fire without smoke. The fact is that *vyāpti* is an invariable, unconditional relation (*niyata anaupādhika sambandha*) between the *hetu* and the *sādhya*. There should be no condition (*upādhi*) for co-existence between the two. Now the co-existence of fire with smoke is not unconditional (*anaupādhika*); the presence of smoke in fire is conditioned by wet fuel (*ārdrendhana*). This has been fully explained by Saṃkara M'is'ra: "It may be asked, what is this invariable concomitance? It is not merely a relation of coexistence. Nor is it the relation of totality. For if you say that invariable concomitance is the connection of the middle term with the whole of the major term, such connection does not exist in the case of smoke (for smoke does not always exist where there is fire). Nor is it natural conjunction, for the nature of a thing is the thing's proper mode of being.....Nor is it the possession of a form determined by the same connection as something else; as for instance, the being fiery is not determined by

connection with smoke, for the being fiery is more extensive. We proceed, then, to state that invariable concomitance is a connection requiring no qualifying term or limitation. It is an extensiveness coextensive with the predicate. In other words, invariable concomitance is invariable coinherence of the predicate." (Quoted by Dr. Jwala Prasad). Thus *vyāpti* is the co-existence of the *sādhya* with the *hetu* in all the loci in which the *hetu* may exist and so that the *sādhya* is never known not to accompany the *hetu* ("Vyāptiścaśeṣasādhyanāśrayās'ritasādhyaśāmnā'likeraṇyarūpā" and "sā ca vyabhicārājñāne sati sabacāra-dars'anena gr̥hyate," Vedānta-paribhāṣā; cf. "Athavā hetumannisthāviraḥāprati-yoginā sādhyena heteraikādhikaranyam vyāptirucyate" and "vyāptiḥ sādhyavadanyasminnasambandha," etc. (Bhāṣāpariccheda).

21. Determination of the Vyāpti: Vyāpatigraha: Simply by asserting that *vyāpti* is indispensable to *anumāna* the matter does not end. The question arises: Is it possible to determine such a universal invariable relation as *vyāpti*? if so, how? Opinion is divided on this subject among the various schools of Indian philosophy. The Cārvakas answer the question in the negative. According to them it is impossible to ascertain that smoke is invariably and universally attended by fire; for even assuming that one can know all present and past cases of smoke, we can never know in advance the future cases. It is therefore, impossible to ascertain a universal relation like *vyāpti*. According to the Buddhists, however, a universal relation can be ascertained, even without examining all possible cases, if it is known that the two terms are

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related by way of causality (*tadutpatti*) or by way of identity of essence (*tādātmya*). Thus if we can establish a causal relation between fire and smoke in one case, we can safely generalise that "wherever there is smoke there is fire". Similarly, if it be ascertained in one case that *s'imś'apā* is in essence a tree so that *s'imś'apā* will not be *s'imś'apā* if it is not a tree, we can, on the basis of this identity of essence, generalise that all *simsapās* are trees. In some respects the Advaitins agree with the views of Naiyāyikas on this problem, although they differ from the latter in important respects regarding the means for testing the validity and soundness of a *vyāpti* and the perceptual knowledge of a *vyāpti*. This has been adequately brought forth by Dr. B. N. Seal in his *Positive Sciences of the Hindus* and Dr. D. M. Datta in his *The Six Ways of Knowing*. As here, however, we are chiefly following the Nyāya school of philosophy we shall confine ourselves to the discussion of the above problem according to the Naiyāyikas.

22 The Naiyāyikas agree with the Advaitins in holding that *vyāpti* is established by means of uncontradicted experience of the relation between two things. Thus uniform experience of concomitance between two objects and not any a priori principle like causality or identity is the basis of *vyāpti*. But the Naiyāyikas go further than the Advaitins and supplement enumeration by intuition and indirect proof. Even in enumeration it is not enough to notice mere agreement in presence, although frequency of experience (*bhūyodars'ana*) without a single exception (*aryabhicarita sāhacarya*) does help in forming a generalization. To ensure greater validity for the *vyāpti* agreement in presence and agreement in absence are both necessary

(' *sahacaryajñāna* and *vyabhicāra jñānaviraha*, ' Tarkasamigraha).

23. The Nyāya method of induction or generalization can be analysed into the following steps.

(i) *Anvaya* (ii) *Vyatireka* (iii) *Vyabhicārāgraha* (iv) *Upādhinirāsa* (v) *Tarka* (vi) *Sāmānyalakṣaṇa-pratyāsatti*.

24. The first step in the inductive process is the observation of agreement in presence (*anvaya*) between two things i. e. whenever one is present, the other is also present.

25. The second step is the observation of agreement in absence (*vyatireka*) between them i. e. wherever one is absent the other is also absent.

26. The third step is the non-observation of any contrary instance in which one of them is present without the other (*vyabhicārāgraha*). This leads us to conclude that there is a relation of *vyāpti* (invariable concomitance) between the two things.

27. But as we have seen above in para. 20, mere invariable concomitance between two things is not *vyāpti*; it should be also unconditional (*anaupādhika*) i. e. there should be no condition (*upādhi*) for the co-existence of the two things. (An *upādhi* is defined as a term which is coextensive with the *sādhya* (*sādhya samvyīpti*) but not with the *hetu* or the *sādhan* (*avyāpta sādhan*) of an *anumāna*). We may invariably find fire with smoke in a kitchen or in sacrificial fire and yet we cannot generalize that all fiery objects are smoky. The reason is that in these cases the invariable concomitance (*sādhya*) between fire and

smoke is not *anaupādhika* or without condition. Thus in the case of the kitchen we find fire with smoke because of *ārdrendhana* or wet fuel. In order, therefore, to ensure that the relation between two things is one of invariable as well as unconditional concomitance, we should repeat our observation of agreement in presence and absence (*anvaya* and *vyatireka*) under varying circumstances. "If uninterrupted agreement (*nityata sāhacarya*) is reinforced by absence of exceptions (*avinābhavarūpasambandha*) we have unconditional concomitances which exclude upādhis, or adventitious conditions."—S. Radhakrishnan, *Indian Philosophy*. This elimination of the *upādhi* (*upādhinirāsa*) is accordingly the fourth step of the inductive method.

28. But what if it is not possible to observe the right kind of positive and negative instances that may help us in proving or disproving our generalization? Here the Naiyāyika says that one of the means for establishing the validity of a *vyāpti*, say between smoke and fire, is to institute the hypothetical argument (*tarka*) "if there were no fire there would be no smoke (as fire is the cause of smoke)", so as to ascertain that the rejection of the proposition to be established would lead to a *reductio ad absurdum*. This means that if the proposition "All smoky objects are fiery" is to be proved by *tarka*, we have to disprove its contradictory "some smoky objects are not fiery". Applying the method of *reductio ad absurdum* we suppose that the proposition "some smoky objects are not fiery" is true. Now this will imply that there can be smoke without fire, but this is contradicted by the known relation of causality between fire and smoke. Thus *tarka* is employed to strengthen a universal proposition by

pointing out the absurdity of its contradictory. In the given example, to say that there can be smoke without fire is equal to saying that there can be an effect without a cause. If some one still insists and maintains that there can be effects without causes he should be faced with the practical contradictions (*vyāghāta*) involved in his statement. If it is possible for an effect to exist without a cause why make fire in order to produce smoke? Thus *tarka* is an indirect proof for the establishment of *vyāpti* and is the fifth step in the inductive method.

29. So far we have noticed *anvaya*, *vyatireka*, *vyabhīcārāgraha*, *upādhanirāsa* and *tarka* as the different steps in the inductive method. But the question arises: How, on perceiving a limited number of cases of smoke accompanied by fire, can we conclude—"All cases of smoke are cases of fire?" The Naiyāyikas answer this question on the basis of their theory of perception (*pratyakṣa*). Let us briefly consider the Nyāya views on perception before considering the question posed above.

30. The Naiyāyikas divide perception into two classes: ordinary (*laukika*) and extraordinary (*alaukik*). In *laukika* perception there is a contact (*sanniparśa*) between the object and some particular sense. But there are cases where we cannot trace any ordinary contact between the object and any of the senses. These cases are therefore those of *alaukika* or extraordinary perception. The Naiyāyikas divide *alaukika* perception into three kinds: (i) *sāmānya-lakṣaṇa* (ii) *jñāna-lakṣaṇa* and (iii) *yogi-pratyakṣa*. We are here concerned with the first kind, viz: *sāmānya lakṣaṇa*. Before we take it up, however, let us very briefly discuss the other two. If on seeing a piece of sandal-wood at a

distance we remark : " There is a piece of fragrant sandal ", even though we do not actually smell the fragrance, then our immediate knowledge of fragrance without any sense-contact is due to our previous knowledge that sandal is fragrant. Such cases of perception when our previous knowledge (*jñāna*) officiates for sense-contact in causing the immediacy of the object are those of (*jñāna lakṣaṇa*). Again, sometimes through meditation and concentration a yogin achieves the supernatural faculty of perceiving all things—past, present and future, concealed, remote and infinitely small. Such perception of objects which are not presented to any ordinary sense-organs in the case of a yogin is called *yogi-pratyakṣa*.

31. Now the answer to the question as to how on perceiving a limited number of cases of smoke accompanied by fire, can we pass on the generalization that " All cases of smoke are cases of fire ", relates itself to the *sāmānya-lakṣaṇa* kind of the *alaukika* perception. According to some Naiyāyikas, such as the authors of *Tattvacin-tāmani* and *Bhāṣapariccheda* etc. we perceive not only a *vyūpti* or individual, but also *sāmānya* or a class of individuals. Thus in perceiving an individual case of smoke, we perceive the universal smokeness as characterizing the particular case of smoke. This perception of the universal, smokeness, amounts to the perception of all cases of smoke (*dhūmī-sāmānya*) as possessing this universal. This means that in perceiving a particular we virtually perceive all particulars of that class *pari passu*. " The difference between the perception of the particular presented to sense, and that of the remaining particulars of the class not so presented, lies in the fact that while what is presented is perceived as possessing the class characteristics plus its

peculiar individual characteristics, the unrepresented particulars are perceived as possessing the class characteristics alone.In such a case, then, the perpetual knowledge of the universal (*sāmānyajñāna*) does the duty of sense-contact (*pratyāsatti*) in causing the immediate knowledge of the class. Hence this kind of perception is named *sāmānya-lakṣaṇa-pratyāsatti*, which literally means contact through knowledge of the universal."

—D. M. Datta.

32. It is by *sāmānya-lakṣaṇa-pratyāsatti* that we can account for the act of passing from the observation of the particular instances of uniformity to the generalization of universal uniformity (*vyūpti*). We apprehend the universals of fire and smoke by *sāmānya-lakṣaṇa-pratyāsatti* and realise their invariable relation through *jñāna-lakṣaṇa*. In perceiving particular cases of smoke we perceive universal smokeness inhering in them; but to perceive universal smokeness is to perceive all cases of smoke in so far as they possess this class-essence of smokeness. Hence we establish the universal proposition, "All cases of smoke are cases of fire" or "All smoky objects are fiery".

33. It will be noticed that the establishment of the *vyūpti* through the perception of smokeness as related to fireness, therefore, involves the intuitive or non-sensuous activity of apprehending the universals. This answers the important question as to how can the *vyūpti* be established from the observation of the particulars. Induction, in the last analysis, depends upon the discovery of certain common essences or universal characters of particular things, for as Dr. S. Radhakrishnan remarks: "Tarka is

only an aid to the empirical method of induction, which cannot give us universal propositions. Even when we observe all possible cases and strengthen our conclusion by the method of indirect proof, still we do not reach absolute certainty about universal propositions. So long as they are based on limited observation, they do not possess any necessity. Enumerative universals are only probable, but not certain. While it is true that the experience of sensible particulars gives rise to the knowledge of the universals, it cannot be said that the apprehension of the universals is fully accounted for by the sensible particulars, since the universal goes beyond any or all of the particulars”.

34. This view of the Nyāya school that the establishment of a universal proposition or *vyāpti* is based upon an intuition or non-sensuous perception of universal as exemplified in particular instances is not admitted by the Advaitins in India and by logicians in the west. But Mr. Eaton in his *General Logic* comes very near the Nyāya view although he does not expressly mention anything like the involvement of an intuitive or non-sensuous activity in the apprehension of the universals. Discussing the nature of induction he observes : “Induction proceeds from the particular to the general, but not from the sheer particular. The particular must be seen to embody some characters or relations, to exemplify some form. Given a particular, let us say a blinding streak of light, and another particular, a loud crash following immediately after, we must be able to characterise these occurrences and frame a generalization, ‘lightening is followed by thunder’, in order that induction may have a beginning. This most primitive of all inductive steps can be described

as the direct perception of the universal in the particular. A generalization *relevant* to particulars must be framed if it is to be tested, and this primary relevance of a generalization to particulars cannot be manufactured from particulars as mere *thises* and *thats*. There is no process by which this relevance can be inferred. It can only be directly apprehended".

35. *Sāmānyalakṣaṇa pariyāsatti* or perception of the class-essence (universal) in the particular instances can then be said to be the sixth step in the inductive method.

36. The psychological ground : *Pakṣatā* : Mention has been made before (para. 12) that inference takes place when there is a *pakṣa* or subject of inference and that the psychological ground of *anumāna* or inference is *pakṣitā* for there can be no inference if there is no *pakṣa* or minor term.

37. The old Naiyāyikas believed that the *pakṣa* being the object about which we want to infer something, it has two conditions : (i) absence of certainty about something (*siddhyabhāva*) and (ii) the will to infer it (*śiṣṭ-dhāṇiṣṭ*). Thus *pakṣatā* consists in the presence of doubt about the *sūlha* (*sūdhyaśāntah*). So we have a *pakṣa* when we are doubtful whether a certain subject is related to the *sūlha*, e. g. hill is the *pakṣa* as we are doubtful whether it is related with fire. But whenever we are in doubt, not only do we have absence of certainty (whether the hill is fiery) but also the will to know or remove the doubt.

38. Modern Naiyāyikas, however, do not agree with this view of *pakṣatā*. According to them the only condition of the *pakṣa* so that the inference may be possible is that there should be no absence of the will to infer and no presence of certainty.

39 Western logicians, on the whole do not recognise the importance of the psychological condition of inference. But Dr. W. E. Johnson has recognised the importance of both the logical and the psychological conditions—what he calls the constitutive and the epistemic conditions of valid inference (See chap. XIV, para. 23).

40. **The function of Vyāpti:** The psychology of Inference: We have already discussed the conception of *vyāpti* and the means of ascertaining it. We may now consider what function (*vyāpāra*) the *vyāpti* plays in inference. The early Naiyāyikas maintain that the knowledge of the *vyāpti* is instrumental to inference. About the function of the *vyāpti* as Dr. D M. Datta remarks: “Some Naiyāyikas hold that the knowledge of a *vyāpti*, as that between smoke and fire, generates on being reproduced by the perception of smoke on the mountain, the knowledge: “The mountain contains smoke that is always accompanied by fire.” (*vahni-vyāpya-dhūmavānayaṁ parvataḥ*) —a knowledge interrelating the three terms S—M—P” (subject—middle term—predicate; here, hill—smoke—fire). The conclusion, “therefore the mountain contains fire” is obtained through this knowledge of interrelation. The true function (*vyāpāra*) of *vyāpti* then is this synthesis correlating the three terms and by it the knowledge of *vyāpti* makes an inference possible. The Naiyāyikas call this function *tr̥tīya-līṅga-*

parāmarśa i. e. a consideration or contemplation of the *liṅga* (middle term) for the third time. The *liṅga* e. g. smoke, is known first when we acquire the knowledge of the *vyāpti* between it and the *sādhya* 'fire' in the kitchen. It is known for the second time in relation to the *pakṣa* when it is found to be existing on the hill. It is contemplated for third time when we know it in the above correlation, hill-smoke-fire, as that character of the *pakṣa* (hill) which is universally related to the *sādhya* (fire). Accordingly, this function is also called *vyāpti-viśiṣṭa-pakṣadharmatā-jñānam*, as when we say 'the hill is possessed of such smoke as is always related to fire.' The knowledge of the *vyāpti* is instrumental to inference through such *liṅgaparāmarśa* or knowledge of the *liṅga* (middle term) as universally related to the *sādhya* (major term) and as characterising the *pakṣa* (minor term). According to the Naiyāyikas the transition from the premises to the conclusion cannot be explained without *liṅgaparāmarśa* as a synthetic correlation between the *pakṣa*, *hetu* or *liṅga* and the *sādhya*.

41. Dr. D. M. Datta observes that this view of the *liṅgaparāmarśa* comes very much near the views of Bradley regarding the analysis of inference: "As regards the synthetic construction of the three terms, the view of the Naiyāyikas will be found by a student of Western philosophy to resemble that of a logician like Bradley, according to whom the inferential process involves the synthesis of the data into a single whole, and a subsequent discovery of the conclusion from that whole by inspection." Commenting upon the process of inference from the premises Mr. Bradley remarks: "We must fasten them together so that they cease to be several and are one construction, one individual

whole. Thus instead of A-B, B-C we must have A-B-C." For example in the inference "Man is mortal, and Caesar is a man, and therefor Caesar is mortal, there is first a construction as Caesar-man-mortal, and then by inspection we get Caesar-mortal."

42. If S is the subject, P the predicate of the conclusion, and M the middle term, we can analyse the inferential process according to the Naiyāyikas into the following steps :

(i) M - P, (First the knowledge of the *vyāpti* is acquired),

(ii) S - M, (Secondly the minor term or the *pakṣa* is found to be characterized by the middle or the *līṅga* : *pakṣa-dharmatā-jñānam*),

(iii) Then there is a revival of the memory impression of the *vyāpti* ; (*vyāpti* has as yet not been developed into a conscious judgement),

(iv) M - P, (After the memory impression has been revived, the knowledge of the *vyāpti* is reproduced in the form of a conscious judgement),

(v) S - M - P, (Then the synthetic correlation of the three terms takes place (*trītiya - līṅga - parāmarśa*, or *vyāpti - viśiṣṭa-pakṣa-dharmatā-jñānam*).

(vi) S - P, (Finally the conclusion establishing a relation between S - P is attained).

43. The logical form of Anumāna or the structure of the Indian syllogism: According to the Naiyāyikas from Vātsyānana downwards there are five members (*avayavas*) of the syllogism as a demonstrative inference.

If we have to convince somebody else of what we, by inference know to be true, we proceed in the following way: We start with the assertion 'The hill is fiery.' Then we are asked, 'Why'? and we answer, 'Because it smokes'. We then give our reason that 'All that smokes is fiery, as for instance, a kitchen hearth and the like'. Now you perceive that the hill does smoke, and hence you should admit that I was right when I said that the hill is fiery'. This five-membered exposition of the syllogism can be put as follows:

(i) *Pratijñā* (Assertion), the hill or fiery;

(ii) *Hetu* (Reason), because it smokes;

(iii) *Udāharaṇa* or *Nidarṣaṇa* (Instance), whatever smokes is fiery, e. g. the kitchen hearth;

(iv) *Upanaya* (Application), so the hill smokes;

(v) *Nigamaṇa* (Conclusion), therefore the hill is fiery.

44. *Pratijñā* sets forth the thesis to be established. In it a certain predicate is either affirmed or denied of a certain subject, e. g. 'the hill is fiery', 'sound is not eternal'. *Pratijñā* or the proposition is only a suggestion or mere probability. For further arguments there should be *ākāṅkṣā* or the desire to know more about the suggestion or the hypothesis.

45. In *hetu* or the second member of the syllogism an analysis of the *pakṣa* is given. It states the presence of the *liṅga* or *sādhana* (mark) i. e. the middle term in the *pakṣa* or the minor term. "It gives the possession of the character which entitles its possessor to be the subject of the conclusion, or *pakṣadharma*". -Dr. S. Radhakrishnan.

46. The third member of the syllogism, viz. *udāharāṇa* asserts a universal relation (*vyāpti*) between the *sādhya* (major term) and the *hetu* (middle term) with reference to some apposite instance. This assertion is a universal proposition which may be either affirmative or negative according as it indicates the agreement in presence or absence respectively between the major and the middle terms. In case of agreement in presence the supporting instance is positive, e. g. 'All cases of smoke are cases of fire, for example a kitchen hearth; in case of agreement in absence the supporting instance is negative, e. g. 'No case of not-fire is a case of smoke, for example, the lake.' Dr. S. C. Chatterjee points out that "As a universal proposition supported by certain instances, the third member of the syllogism is found to be an inductive generalization based on actual facts of observation. It thus shows that an inference is both deductive and inductive, formally valid and materially true. As Dr. Seal rightly observes: 'It harmonises Mill's view of the major premise as a brief memorandum of like instances already observed, with the Aristotelian view of it as the universal proposition which is the ground of the inference.'"

47. *Upanaya* or application is the fourth member of the syllogism. It asserts the presence or absence of the ground suggested in the minor term. It is affirmative in the former case, as in the example, 'so the hill smokes,' and negative in the latter case, as in the example, 'sound is not that which is not produced.'

48 The conclusion which is the fifth member of the syllogism is the restatement of the proposition (*pratijñā*) on the basis of the statement of the probans (*hetu*) or the reason. This has been called *nigamana* because it

serves to connect or string together the proposition, the reason, the example, and the reaffirmation. The conclusion should not be supposed as a mere repetition of the *pratijñā* or the proposition, because it asserts as a firmly established truth that which is put in the *pratijñā* as a bare hypothesis.

49. Classification of Anumāna : Naiyāyikas have given us three different classifications of *anumāna* or inference. The western logicians have differentiated between the deductive and inductive inference, each branch having been treated separately. To the Indian mind there is no such division. The approach of the Indian logicians is more synthetic and integral. They do not recognise the distinction between formal validity and material truth. The Naiyāyikas have given three different classifications of inference based on the following three considerations :

(i) The use or purpose which the inference serves—whether it is meant for oneself or for others.

(ii) The nature of the *vyāpti* or the universal relation between the *hetu* and the *sādhya*.

(iii) The nature of the Induction by which we get the knowledge of *vyāpti* or the universal proposition.

50. (i) The first classification of inference is into *svārtha* and *parārtha*. If the inference is for one's own self and is intended for the acquisition of knowledge on our own part, it is called *svārthānumānam*; if it is for others and is meant for the demonstration of a known truth to others, it is called *parārthānumānam*. The above mentioned five-membered syllogism is necessary only for *parārthānumānam* when we want to demonstrate a truth

to other persons. When it is inference for one's own self (*svārthānumānam*) it does not require any verbal statement in the form of the five-membered syllogism.

51. (ii) According to the second classification which is given in early Nyāya books there are three kinds of inference, viz. *pūrvavat*, *s'eṣavat* and *sāmānyato-dṛṣṭa*. *Pūrvavat* is the inference of effects from causes, e. g. that of impending rain from heavy dark clouds; *s'eṣavat* is the inference of causes from effects e. g. that of rain from the rise of water in the river; *sāmānyato-dṛṣṭa* refers to the inference in all cases other than those of cause and effect, e. g. the inference of the movement of the sun from the knowledge that its position changes like other moving objects, or the inference of the sour taste of the tamarind from its form and colour. It will be seen that whereas in *pūrvavat* and *s'eṣavat* inference the *vyāpti* between the *sādhya* and the *hetu* is a uniform relation of causality between them, in *sāmānyato-dṛṣṭa* inference the *vyāpti* does not depend upon causal uniformity but upon our experience of the *sādhya* and the *hetu* being uniformly related to each other.

52. (iii) The third and the more important classification consists in dividing inference into three different kinds, viz. *kevalānvayi*, *kevala-vyatireki* and *anvaya-vyatireki*. The principle involved here is the nature of the major premise. Where the *vyāpti* has been observed by a combination of a large number of instances of both agreement in presence and agreement in absence, as in the case of the concomitance of smoke and fire (wherever there is smoke there is fire (*anvaya*) and where there is no fire there is no smoke (*vyatireka*)), it is *anvaya-vyatireki anumāna*. But sometimes the major term is such

that it does not allow the double observation of *anvaya* and *vyatireka*, as in the case of the following inference : " Whatever is nameable is knowable. The jar is nameable. Therefore it must be knowable." Here the *vyāpti* could not be based on any negative instance, and the validity of the major premise can be tested only through *anvaya* (agreement in presence). The *vyatireka* (agreement in difference) cannot be applied here because it is not possible to argue "What is not knowable is not nameable;" because what is not knowable falls outside one's knowledge and nothing can be predicated of it. This kind of inference is therefore called *kevalānvayai anumāna*.

53. The third form of *anumāna*, viz. *kevalavyatireki*, is that where positive instances of *anvaya* (agreement in presence) cannot be found and where only *vyatireka* (agreement in difference) is possible. The Naiyāyikas give the following example of *kevalavyatireki anumāna* : "Of the five elements none that is not different from the other elements has smell. Therefore, the earth is different from the other elements. Here it is evident that there cannot be any positive instance of agreement in presence (*anvaya*) and the concomitance has to be taken from negative instances. In such a case the major term (smell) is exclusively present only in earth ; therefore we cannot have anything else except earth where we can observe agreement in presence, so as to be able to conclude that whatever has smell is different from the rest. We can only observe negatively that what is not different from the rest (the non-earth elements) has no smell, as water, air, etc. This inference is useful only in those cases where we have to infer something by reason of such special traits of it as is possessed by it and it alone. A more homely instance of *kevalavyatireki anumāna* will

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be : "No mountain that is not the Himalayas is the highest in the world. This is the highest mountain in the world. Therefore, this is the Himalayas."

54. Anumāna and the Petitio Principii : We have already discussed in chapter XIV Mill's objection to syllogism that it involves the fallacy of *petitio principii*. Here we may briefly review the Nyāya position in this regard. According to the Naiyāyikas, in perceiving an individual case of smoke we perceive universal smokeness (para. 31). Through *sāmānya lakṣaṇa-pratyāsatti* when we know the *vyāpti* between smoke and fire we know all the individual cases of smoke to be related to fire. From this it will appear that if our knowledge of smoke-fire relationship covered all cases of smoke and fire, we cannot arrive at any new knowledge by inference. The conclusion of an inference will only repeat what is already known to be true and stated in the major premise. But a closer examination of the Nyāya views on *vyāpti* clears this charge of the conclusion being assumed in the major premise. As we have seen, the Naiyāyikas hold that when through *sāmānya pratyāsatti* we acquire the knowledge of all cases of smoke being related to fire through the perception of an individual case of *vyāpti*, what is really known is that all cases of 'smokeness' are universally related to 'firedness' in their general character without any reference to their special characters. Therefore, whereas *vyāpti* or the major premise gives us the knowledge of the relation between smoke and fire in their generic or class-essence, the conclusion gives us the knowledge of the relation of fire to a specific or particular object, e. g. the hill. Moreover, the major premise, viz. 'All smoky objects are fiery' by itself cannot lead

us to the conclusion, viz. 'The hill is fiery.' It is only through the combination of the minor premise, viz. 'The hill smokes' with the major premise that we can get the conclusion. Therefore, we can say that the major premise is epistemically independent of the conclusion and therefore the inference does not involve a *petitio principii*.

55. **The Nyāya and the Aristotelian Syllogisms :** Among the ancient nations the Hindus and the Greeks were the first to cultivate Logic as a science. Though it would be questionable to suppose that the Greeks took and obtained their logic from the Hindus, there is no doubt that in strict order of priority of time the latter were ahead of the former in conceiving Logic as a separate science. There are striking parallels in both regarding the treatment of topics like categories, genus, species and syllogism. We shall presently compare the Nyāya and the Aristotelian syllogisms with each other.

56. It has already been remarked that the Indian logicians did not differentiate between the formal and the material or the deductive and the inductive logic. *Anumāna* as a method of valid knowledge (*pramāṇa*) involves synthesis of formal validity and material truth. It is in this background that we should compare the Nyāya syllogism with its western counterpart.

57. (i) We have seen that the Indian syllogism consists of five *avayavas* or members as against the three of the western syllogism. It will be noticed that the conclusion repeats the first proposition and the fourth member is a restatement of the second. Therefore, strictly speaking every syllogism has only three members. This

was realised by the Indian logicians. Thus Nāgārjuna started the view of the three-membered syllogism and maintained that a conclusion can be established through a reason and an example, affirmative or negative. It should not, however, be forgotten that the aim of the five membered form of exposition was to debate and to convince somebody else of what we, by inference, know to be true and this aim is best served by the five-membered syllogism. We, therefore, agree with Vātsyāyan and Uddyotakara in rejecting the plea that two members of the five are unnecessary in the Indian syllogism. Though both Gautama and Kaṇāda do not explicitly mention it, latter logicians distinguish between *svārthānumāna* and *pārārthānumāna*, the latter to be expressed in five members and the former in three members. The five different members of *pārārthānumāna* have already been discussed above (see paras. 43 to 48). The three-membered syllogism corresponds *totidem verbis* (in those very words) to the first form (*Barbara*) of Aristotle's syllogism :

All that smokes is fiery,
The hill smokes ;
Therefore the hill is fiery.

Thus in a purely logical syllogism—unmixed with rhetorical appurtenances—the first two or the last two of the five members (*avayava*) may be dropped. It is now possible to contrast this three-membered Indian syllogism with the Aristotelian one.

58. (ii) We have the same three terms in both the syllogisms—major (*sādhya* or *vyāpaka*), middle (*hetu* or *vyāpya*), and minor (*pakṣa*).

59. (iii) Both the systems agree that the two essentials of a valid inference are *vyāpti* (universal relation) or the major premise and *pakṣadharmatā* or the minor premise. We cannot derive the conclusion (*nigamana*) either from the major by itself or from the minor by itself. A synthesis of the two is necessary.

60. (iv) Hindu logic has only one Figure and one Mood. The Naiyāyika did not attach much importance to the different positions in which the middle term might occur. Accordingly, *Barbara* was typical of all syllogistic reasoning to him. All judgements being double-edged, he supported all inference with both positive and negative instances. "From the knowledge that the subject of the proposition possesses a characteristic, which is invariably accompanied by the property, the presence of which we wish to establish, we infer that the subject has the said property. The principle is expressed in terms of connotation. If it is translated in terms of classes we get the *dictum de omni et nullo*. Whatever may be asserted of every individual in a class may be asserted of any individual belonging to the class". —Dr. S. Radhakrishnan.

61. (v) The major premise of the Indian syllogism does not stand by itself but is supported by an example, (Whatever smokes is fiery, e. g. the kitchen hearth). Originally this step in inference consisted perhaps of only the example. It is even now called *udāharaṇa*. The general statement seems to have been introduced later. This means that originally reasoning was taken to be from particulars to particulars. Later on it was realized that reasoning proceeds from particulars to particulars through the universal. But even then the example was retained. This shows that

cular instances and that the reasoning process is not purely deductive but inductive-deductive.

62 (vi) In the next step (*upanaya*) we have a synthesis of the major and the minor premises. Whereas in the Aristotelian syllogism the two stand apart, even though the middle term links them together, in the Nyāya syllogism the connection between the two is made quite explicit by bringing all the three terms together in the same proposition.

63. (vii) In the Nyāya syllogism the minor term is always an individual object or a class and so a universal and not a particular. The minor premise being always expressed in the form of a universal affirmative proposition the conclusion is never about 'some' cases.

The order of questions discussed in this chapter

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|-------|---|------------------|
| Q. 1. | Define <i>anumāna</i> . Are the terms <i>anumāna</i> and inference interchangeable ? | Paras. 1 to 4. |
| Q. 2. | State and explain the constituents of <i>anumāna</i> . | Paras. 5 to 11. |
| Q. 3. | What are the various characteristics of the <i>Hetu</i> ? Explain them. | Para. 12. |
| Q. 4. | What are the various grounds of <i>anumāna</i> ? Discuss each fully. | Paras. 12 to 39. |
| Q. 5. | What is the meaning of <i>vyūpti</i> and what are its various kinds ? Discuss them fully. | Paras. 14 to 18. |
| Q. 6. | How is <i>vyūpti</i> determined ? | Paras. 21 to 35. |

- Q. 7. What is the function of *vyāpti* ? Paras. 40 to 42.
Discuss the psychology of inference.
- Q. 8. Discuss the logical form of *anumāna* or the structure of the Indian syllogism. Paras. 43 to 48.
- Q. 9. Discuss the various classifications of *anumāna*. Paras. 49 to 53.
- Q. 10. Distinguish between *svārthānumāna* and *parārthānumāna*. Para. 50.
- Q. 11. Distinguish between *pūrvavat*, *s'ēṣavat* and *sāmānyato-dṛṣṭānumāna*. Para. 51.
- Q. 12. Distinguish between *kevalānvayi*, *kevala-vyatircki* and *anvaya-vyatircki anumāna*. Paras. 52, 53.
- Q. 13. Does *anumāna* involve *pctitio principii* ? Para. 54.
- Q. 14. Compare and contrast the Nyāya and the Aristotelian syllogisms. Paras. 55 to 63.

CHAPTER XXI

NYĀYABHĀSA (FALLACIES OF ANUMĀNA)

1. **Introductory:** There being only one and the same form for all *anumāna* in Indian logic, it does not have formal fallacies. In it all fallacies are material. There is no question here whether the conclusion validly follows from the premises—that it does and it must, provided the members or the constituent propositions are materially true. The Aristotelian classification of fallacies into those *in dictione* and those *extra-dictionem* (See chap. XIX, paras. 4, 5) agrees with the Nyāya classification in excluding the formal fallacies like the undistributed middle, the illicit process, and so on, from the list of fallacies.

Dr. S. Radhakrishnan observes, “Normally, knowledge is valid ; error is adventitious and arises when the conditions under which right cognition is produced fail. Fallacies occur when the normal working of the cognitive powers is interfered with.” Accordingly, there will be as many fallacies of *anumāna* as there are fallacies of its component parts. *Nyāyābhāsa* will, therefore, ordinarily include in its larger sense all fallacies incident to *pratijñā*, *hetu*, *udāharana*, *vpanaya* and *nigamana*. But in the last analysis the validity of an inference depends on the validity of the *hetu* or the reason employed in it. Therefore, from the Nyāya point of view, all fallacies of inference are born of the fallacious nature of the reason or the *hetu*, and are accordingly, included under the general name of *hetvābhāsa* (fallacy of the *hetu* or the reason).

3. The five conditions of the *hetu* or the middle term have been discussed before (See para. 12 above). If any one of these conditions is not fulfilled in the case of *anvaya vyatireki* inferences (See para. 52 above), the *hetu* as a ground of inference is fallacious. In the case of *kevalānvayi* inferences (para. 52), the condition of *vipakṣa-sattva* (i. e. the middle term must be absent in all cases in which the major is absent) does not apply to the middle (*hetu*), because they are such that no instance of their absence can be found. Therefore only the rest of the four conditions must be fulfilled in *kevalānvayi-anumāna*. On the other hand, in the case of *kevala-vyatireki* inferences (para. 53), the condition of *sapakṣasattva* (i. e. the major must be present in all cases in which the middle is present) does not apply to the *hetu*, because they are such that the middle term is always negatively related to the major term. Here also, only the other four conditions must be fulfilled. From this it follows that a valid *hetu* or middle term is one that satisfies the five or at least the four conditions as shown above, while an invalid middle term (*hetvābhāsa*) is that which violates one or the other of the five conditions. We shall now discuss the individual cases of *hetvābhāsa*:

4. (i) *Savyabhicāra* or the irregular middle: The fallacy of *savyabhicāra* is committed when the *hetu* or the middle term leads to no one single conclusion, but to many opposite conclusions. This involves the violation of the condition of *sapakṣasattva* which requires that the *hetu* should be distributively related to the *sūtrānta*, i. e. it should be present in all homogeneous instances in which the *sūtrānta* exists. In later logic such a *hetu* has been called *anāḥkāntika* because it is not uniformly concomitant

with the major term. There are three sub-divisions of *savyabhicāra* or irregular middle :

(a) *sādharaṇa* (ordinary) *savyabhicāra* : Where the middle term is too wide or when it is related in some cases to the major term and in other cases to the absence of the major, e. g. "The hill is fiery, because it is knowable." Here the middle term 'knowable' is too wide, because it applies to all objects whether they are fiery or not.

(b) *asādhāraṇa* (extra-ordinary) *savyabhicāra* : Where the middle term is too narrow or when it is related neither to cases where the major is present nor to cases where the major is absent, e. g. "Sound is eternal, because there is *s'abdatva* (soundness) in it. Here the middle term 'soundness' is related neither to those objects in which the major exists, such as 'soul', nor to those objects in which the major is absent, such as 'pot'.

(c) *anupasaṁhārī* (indefinite) *savyabhicāra* : Where the middle term cannot be verified, or when the middle term is related to a minor term which applies to no definite individual or class of individuals, e. g. "All objects are eternal, because they are knowable." Here the reference is to the whole universe. We can not prove the validity of the major premise (All knowables are eternal) because beyond 'all objects' we have no instances of the concomitance between the knowable and the eternal.

5. (ii) **Viruddha or the contradictory middle** : This fallacy is committed when the *hetu* or reason contradicts the very proposition to be established. A *viruddha* or contradictory middle exists in those objects in which the

major does not exist and not in those in which the major exists. Hence it contradicts the *pratijñā* in place of proving it. Thus if somebody argues that "sound is eternal, because it is caused," he commits the fallacy of *viruddha* or contradictory middle, because the middle term 'caused' disproves the eternality of sound, as what-ever is caused is non-eternal. It should be noted that whereas *savyabhicāra* or irregular middle leads to various opposite conclusions and thus fails to establish *pratijñā*, the *viruddha* or contradictory middle disproves or contradicts it by proving its contradictory.

6. (iii) **Prakarāṇasama or the counteracted middle :** *Prakarāṇa* means the point at issue ; therefore *prakarāṇasama* is a reason similar to the point at issue. It is also called *satpratipakṣa* or that which is counterbalanced by an equally strong middle term. If the middle term raises the question which it is intended to answer so that it finally leaves us in a state of mental vacillation between two opposite views both of which appear to be equally strong we have a case of the *prakarāṇasama* middle. The opposed reasons neutralise or counterbalance each other, e. g. "sound is eternal, because it is audible," and "sound is non-eternal, because it is produced like a pot." Here the second reason that sound is produced proves non-eternality of sound which contradicts the former inference that sound is eternal because it is audible. The two middle terms counteract each other and we are left with the same question with which we started, as to whether sound is eternal or non-eternal.

7. The difference between the *prakarāṇasama* middle and the *savyabhicāra* middle is that whereas in the former

two different characters of the minor taken as the middle terms lead to opposite conclusions, in the latter the same character of the minor taken as the middle term leads to opposite conclusions. The difference between the *prakaraṇasama* middle and the *viruddha* middle is that in the former the opposite conclusion is proved by a different middle term (*hetvantara*), but the latter by itself proves the opposite of what it is meant to prove.

8. (iv) **Assiddha or the unproved middle:** The *assiddha* or the *sādhyasama* middle is one that like the major itself requires to be proved. Thus an *assiddha* middle is an unproved assumption and not an established fact. There are three kinds of the *assiddha* middle:

(a) *svarūpasiddhi*: where the nature of the middle is absolutely unknown, as when we say "sound is eternal because it is visible". Here the visibility of sound is absolutely unknown.

(b) *ās'rayāsiddhi*: where the middle has no basis, e g. "there is no God since he has no body". Here bodylessness has no substratum or basis if there were no God. Another example of *ās'rayāsiddhi* is "the sky-lotus is fragrant, because it belongs to the class of lotus". Here the middle term 'class of lotus' cannot subsist in the minor term sky-lotus, since the latter is unreal. In other words, the middle term has no *locus standi*; therefore it is a case of the baseless middle (*ās'rayāsiddhi*).

(c) *vyāpyatvāsiddhi*: where the concomitance (*vyāpti*) of a middle term with the major cannot be proved. This may arise in two ways: (a') when the middle term

may be non-concomitant with the major term, e. g. "All reals are momentary; sound is a real; therefore sound is momentary". Here there is no universal relation between the 'real' and the 'momentary', and, therefore the major premise is false. (b) when the relation between the middle and the major terms depends upon some *upādhi* or condition, e. g. "The hill is a case of smoke, because it is a case of fire". Here the relation between the middle term 'fire' and the major term 'smoke' is not unconditional. It depends upon the presence of wet fuel. This fallacy is technically named as *anyathāsiddha*.

9. (v) *Kālātīta* or the mistimed middle: It is the reason that is adduced when the time is past. This fallacy is committed when the middle term consists of two or more events which succeed one another in time, whereas it can prove the conclusion only if these events take place simultaneously. For example: "sound is durable because it is manifested by union as a colour". The colour of a thing, say, a jar, is manifested when the latter comes in contact with light, although it existed before its union with light, and will continue to exist after the union ceases. But the sound, such as that produced by a drum and a stick, did neither exist before the union of the stick with the drum, nor will it continue to exist after the union has ceased. Whereas in the case of colour the manifestation takes place simultaneously with the contact between the light and the coloured object, in the case of sound, the manifestation takes place immediately after the union of the drum and the stick. Therefore the middle term is fallacious because it is incongruous with the given example and fails to establish the conclusion.

10. (vi) Bādhita or the contradicted middle: It is better to distinguish between the fallacy of the *kālātīta* and that of *bādhita*, rather than to identify them as some writers have done. While in the former, the middle term is vitiated by some limitation of time, in the latter, the middle term asserts something the opposite of which is proved to be true by some other *pramāṇa* or method of knowledge. For example: "fire is cool, because it is a substance" Here the middle term 'substance' which seeks to prove that fire is cool is contradicted by our actual perception that fire is hot and not cool. In the case of the fallacy of *bādhita*, an inference is contradicted not by another inference, as is the case with the fallacy of *prakaraṇasama*, but by some non-inferential source of knowledge.

11. The Nyāya deals at great length with fallacies related to dialectic. These are not the fallacies of inference but they are connected with the art of debate. Under this description we have the fallacies of *chala*, *jāti* and *nigrahasthāna*.

12. Chala: Three Kinds of *chala* (verbal quibbling) are distinguished:

(a) *Vākchala*: This corresponds to the fallacy of equivocation in western logic. Thus if we use an ambiguous term and the person spoken to takes it in a sense different from that intended by the speaker, the fallacy of *vākchala* is committed. For example: When one man says, "This boy is a *nava-kambala*," (possessed of a new blanket), to which another replies, "He is not *nava-kambala*," (possessed of nine blankets).

(b) *Sāmānyachala*: This fallacy occurs when a term used with reference to an individual is extended to mean the whole class. For example: When one says, "This Brahmin has learning and conduct," to which the quibbler objects by saying, "All Brahmins do not have learning and conduct."

(c) *Upacārachala*: In this fallacy a figurative expression is taken literally. It is thus the fallacy of figure of speech. For example: When one says, "the scaffolds cry out," the quibbler objects, "inanimate objects like scaffolds cannot cry."

13. *Jāti*: It is the fallacy of irrelevance. This fallacy is committed when a futile argument is based on some irrelevant consideration which fails to establish the conclusion, e. g. "sound is eternal, because it is incorporeal like the sky." Here the argument is based on an irrelevant consideration of the alleged similarity between sound and the sky.

14. *Nigrahasthāna*: It literally means a ground of defeat. This fallacy may be due either to a misunderstanding or to the want of understanding. It may be committed by shifting the proposition, (*pratijñāntara*) or by contradicting the proposition (*pratijñāśirodha*), and so on. It includes *hetvabhāsa* or the fallacy of the middle term.

15. No further discussion is necessary of the fallacies of *chala*, *jāti* and *nigrahasthāna*, for some of them come under the inferential fallacies, while others are either semi-logical or non-logical in character.

Order of questions discussed in this chapter

- Q. 1. Discuss the nature of fallacies in Paras. 1 to 3.
Indian Logic.
- Q. 2. Name and explain several *hetvā-bhāsas* or the fallacies of the middle term.
- Q. 3. Distinguish between *savyabhicāra*, *viruddha* and *parakaraṇasama* or *satpratipakṣa* middle terms.
- Q. 4. Distinguish between *kālātita* and *bādhita* middle terms.
- Q. 5. Discuss the fallacies of *chala*, *jāti* and *nigrahasthāna*.
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CHAPTER XXII

LAKṢANA (DEFINITION)

1. **General nature :** Definition states "a characteristic mark which applies to all things denoted by the term defined, neither more nor less" (Lakṣyatāvacchedakasamanīyatatvam). It states the essential nature (*svarūpa*) of a thing so as to differentiate it from others. By defining a thing we distinguish it from all other things with which it may likely be confused, although things can be distinguished even without stating their essences. In order to fix the essence of a thing we may first give its genus and then mention those attributes which mark it off from all other like things. This is best done by starting with the genus of the thing to be defined and then narrowing its denotation by expressly excluding superfluous objects, by the use of words like 'other than' (*itar*), 'different from' (*bhinna*).

2. It will be seen that this account of definition according to the Nyāya Sūtra sounds like the scholastic view of definition *per genus et differentiam*. Moreover, the Naiyāyikas seem to be in full agreement with Joseph regarding the meaning of the essence of a thing when he observes: "The essence of anything is that in virtue of which it is such a thing. It is in virtue of being a three-sided rectilinear figure that anything is a rectilinear triangle;" The definition should state exact connotation of the thing defined, neither more nor less.

3. **Fallacies of definition :** There are three kinds of fallacies incident to definitions :

(1) *Ativyāpti* : If the attribute standing for the lakṣṇa of a thing applies to objects beyond the term defined, it is a case of the fallacy of *ativyāpti*. This corresponds to the fallacy of a definition being *too wide* in western logic, e. g. when we define a cow as a horned animal. Here the definition is applicable to many other animals besides the cow such as goats and

buffaloes. In this case the definition states a characteristic mark which applies to more things than those denoted by the term defined.

4. (ii) *Avyāpti* : If the attribute or attributes forming the definition of the class defined apply only to a portion of that class and not to the whole of it, the fallacy of *avyāpti* is committed. This corresponds to the fallacy of a definition being *too narrow* in western logic, e. g. when we define a cow as a tawny animal. Here the definition is applicable only to those cows which are tawny in colour and not to all cows. In this case the definition states a characteristic mark which applies to less things than those denoted by the term defined.

5. (iii) *Asambhava* : This fallacy is committed when the definition does not state the essence or connotation of the object defined but either some of its properties or accidental attributes, e. g. when we define a cow as an animal with uncloven hoofs. The attribute of having uncloven hoofs is derivative and not fundamental or essential to make a cow what it is. This fallacy militates against the very nature and purpose of a definition which requires that the definition should state the essential nature (*svarūpa*) of a thing so as to differentiate it from others.

Order of questions discussed in this chapter

- Q. 1. What is the nature of definition Paras. 1, 2.
according to the Naiyāyikas?
Compare it with the Western
view of the nature of definition.
- Q. 2. Discuss the fallacies of definition Paras. 3 to 5.
according to the Indian logic and
compare them with those in the
Western logic.
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